C&RL

COLLEGE & RESEARCH LIBRARIES

September 2025
VOLUME 86
NUMBER 5
ISSN 0010-0870

Editorial

Taking Things Slow: A Note from the Incoming Editor

Several years ago, when I first heard about the "slow movement," the cynic in me was immediately suspicious. However, as my colleagues discussed concepts like "rest is resistance" and friends shared memes and reels on social media promoting rest and an intentional slowdown in work to improve focus, I began to look more into it. As someone wired (some might argue, programmed) throughout my life to constantly be moving and busy, it felt unusual—even a little stressful—to pause and consider slowing down my work as a tenure-track academic librarian and department head. However, as I grew my department from two people to six, I realized that my team and I were trying to run even before learning to walk—we didn't have a mission or vision for the department yet, and we lacked some important foundational processes, like transparent and clear workflows for assigning and tracking instruction sessions. Instead, I needed to take a moment to let my new hires settle in, learn their roles and how they wanted to organize and manage their individual time and processes, and then see how we all worked together as a team. And that was going to take time.

I learned that taking the time to think critically, intentionally, and honestly about our projects was not so much a luxury as it was a necessity. If I wanted my instruction team to achieve sustainable success and work as a unified department, I would have to slow things down and take a more measured approach to our work. Could I have slowed down even more than we did? Most likely. However, as anyone who knows me would probably agree, the fact that I considered and then tried to slow things down were huge steps for me.

As I move from my role as Editor-Designate to Editor of *College & Research Libraries*, I am excited and grateful to work with the editorial board, our readers, and prospective authors in shaping this touchstone of our professional and scholarly conversation for the future. However, I also feel the desire and need to take my time as I fully take stock of where the journal is at this moment in time. During the past year, I shadowed immediate-past Editor Kristen Totleben as she taught me the journal's workflows and processes, while also laying bare the opportunities for the continued improvement of the journal. I am extremely grateful to Kristen for her seemingly unending patience, grace, and support as I often asked the same questions over and over until things finally started to click.

This time was well spent as it gave me a sense of some of the journal's strengths and challenges. However, even with this year under my belt, I cannot say I have a strong plan for my editorship just yet. In fact, I am sort of glad I don't. I may be the Editor, but I am certainly not the only stakeholder in *C&RL*'s success, and I plan to spend my first year as Editor continuing to learn while establishing some foundational improvements to the journal's processes and policies. Other publishing professionals, both in and outside of academia, encouraged me to enter my editorship slowly and to first evaluate the basics to make sure as much is clear and transparent for editors, reviewers, authors, and readers as possible before making any grand editorial shifts.

I have also heard from several publishing colleagues that being the editor of a journal can be a lonely endeavor, and my question after a year of shadowing and benefitting from the perspective of another editorial colleague and the board is why should that be the case? Over a delightful riverside lunch back home in Florida, my favorite high school English teacher (who supervised my first editorial role) noted: I may be editor in title, have good intentions, and maybe will have excellent ideas for advancing the journal, but *C&RL* does not belong to me alone. I am its steward, the person who is accountable for its publication and the decisions made, but I do not have to make those decisions in a vacuum and, when possible, I should consciously choose not to do so.

To this end, I first plan to work with the editorial board to focus on evaluating and improving workflows and editorial policies that I feel could be strengthened, made more transparent, and/or enhanced. Some immediate examples that come to mind include documenting editorial workflows for articles and book reviews, crafting explicit peer review guidelines, and considering ways to expand the role of editorial responsibility beyond one solitary editor.

I love that *C&RL*'s authors have shared their expertise in order to guide, influence, and engage with the broader academic library profession for more than 85 years. I also understand that there are opportunities for improvement that will allow *C&RL* to grow and excel even further. As I begin my editorship, I will take things a bit more slowly than I perhaps originally planned so that I have time to best assess where the journal is at this point in time, deliberate on where the journal might go next, and strategically and thoughtfully make progress toward whatever goals are eventually identified.

These days it feels like time moves simultaneously fast and slow, which is perhaps why it's even more important to take a beat. As I take this time to consider future pathways, I look forward to taking this measured approach to *C&RL*'s management and leadership, and I hope the journal's readers and authors are as excited as I am to see what unfolds.

Librarians as Faculty Developers: Shaping Disciplinary Classroom Experiences through Information Literacy

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Involvement in faculty development is a promising approach to realizing academic libraries' goals for information literacy. This study examines an inter-institutional program where librarians partnered with classroom instructors to create projects where students learned to use information in disciplinary ways. Using thematic analysis to examine participant materials, the findings suggest that the informed learning design model underpinning the program supported the creation of information-rich projects and fostered a sense of empowerment in librarians serving as faculty developers. Librarians can advance their role as educators by partnering with classroom instructors and presenting information literacy as a way to foster disciplinary learning.

Introduction

For higher education students to learn the theories, practices, and concepts of their disciplines, they often have to engage in disciplinary information practices. For example, when learning about astronomy, students may need to understand how an astronomer goes about reading scholarship in that field (Durisen & Pilachowski, 2004). As experts in their field, instructors are not always aware of the challenges students face in trying to use information to be successful in their courses (Riegler, 2020). Knowledgeable of the nuanced ways in which people use information in disciplinary and professional contexts, academic librarians are uniquely positioned to design instruction aimed at increasing students' awareness of the critical role information plays in their learning process. Yet, academic librarians typically have limited access to students in the classroom.

One approach to integrating information literacy (IL) into disciplinary courses is for academic librarians to offer professional development in which they train or work with class-

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room instructors to develop instruction. Made possible in part by a grant from the Institute of Museum and Library Services (IMLS), a project called Creating Informed Learners in the Classroom (CILC) was conducted between 2019 and 2023 (Maybee). In this project, 15 academic librarians and 15 classroom instructors at three research universities (University of Arizona, University of Nebraska, Lincoln, and Purdue University) partnered to develop IL student projects. Librarians and instructors were introduced to "informed learning design," an educational design model that emphasizes the relationship between learning to use information and learning about disciplinary content (Maybee et al., 2019). Creating coursework for disciplinary courses, each librarian-classroom instructor team worked together to develop learning objectives, activities, and an assessment strategy to enable students to use information in ways that support learning. In the year following the CILC project, the student projects were implemented in courses taught by the instructor participants.

The project team studied the usefulness of the informed learning design model to support academic librarian, as well as classroom instructor, partnerships to integrate IL into disciplinary courses. The study used thematic analysis to examine materials created by participating librarian-classroom instructor teams, including post-implementation reports each team wrote describing the outcome of the implemented student projects and reflections composed by librarians about the collaboration. Findings suggested that the informed learning design model supported the creation of information-focused learning goals, which guided the development of the IL student projects. The design model also fostered the exploration of learning goals generally and enabled instructors to identify ideas for continuous refinement of student projects thus enabling students to use information to learn in disciplinary contexts. The design model supported librarians in their partnerships with instructors and empowered them to shape student learning experiences.

Literature Review

Libraries and Faculty Development

Faculty development involves working with instructors outside of the classroom to improve teaching and learning. Recognizing potential gains for IL, academic librarians have argued for decades for involvement in this type of instructional work (Iannuzzi, 1998). Grafstein suggested that teaching IL should be a shared practice between instructors and librarians (2002). The librarian community has long advocated for librarian-faculty partnerships to support students learning about information literacy (Kenedy & Monty, 2011; Racelis, et al. 2020; Black et al., 2001). Smith stated giving up instructional duties to work with instructors outside the classroom was necessary for academic librarians to be able to integrate deeply into higher education (1997).

Librarians' involvement in faculty development offers a countervailing perspective on traditional library instruction that values and prioritizes librarians providing direct instruction to students. The efficacy of one-shot instruction is debated in key publications in the field, such as the *College & Research Libraries*' special issue on the topic (2022). Vossler et al. noted the mixed track record and high cost of prioritizing one-shot instruction (2023). Reflecting on findings from a Delphi study of IL experts, Saunders argued that librarians should deepen partnerships with faculty on IL instruction and assignment design, as working with instructors better aligns IL with curricular goals and demonstrates the importance of IL to learning (2009). Working in collaboration with instructors elicits the benefits of sustainability

and scalability of librarians' instructional efforts, and this approach is more likely to achieve alignment between IL efforts and an instructor's learning goals (Maybee, 2018).

Several programmatic examples of librarian involvement in faculty development are described in the library and information science literature. Wishkoski and colleagues described three faculty development workshops that enabled disciplinary faculty to redesign research-focused assignments, impacting about 700 students (2018). Bowles-Terry et al. led faculty development workshops to guide faculty in the development of research-focused courses and assignments aligned with their university's learning outcomes (2017). Both studies found that academic libraries are uniquely positioned to provide interdisciplinary development opportunities for faculty to improve their teaching.

Recent literature reviews of faculty development focused on IL indicate that the benefits of librarians serving in faculty development roles include an increased ability to integrate IL into curricula (Hammons, 2020) and a positive impact on student performance (Hammons, 2022). Yet, academic librarians must first view themselves as educators before they can assume a faculty development role. Without identifying as an educator, a librarian may not feel comfortable or effective serving as a faculty developer. Flierl and colleagues explored librarians' experiences in a campus faculty development program (2019). Their phenomenographic analysis suggests that a variety of experiences is possible for librarians serving as faculty developers, ranging from someone who simply provides resources for talented faculty to co-educators engaging in mutually beneficial dialogue. Some academic librarians acting in faculty development roles argue that to be effective faculty developers, librarians need institutional support for professional development in teaching and learning (Becksford, 2022; Flierl et al., 2020). While some LIS programs may have coursework for instruction, faculty development requires a different skillset, and perhaps, classroom teaching experience.

Institutional buy-in can be integral to faculty development, and the effort to achieve buy-in can be developed by a library, a department, or an institution. Jumonville described the libraries working with faculty to integrate IL into their courses as part of a course grant program associated with an institutional assessment mandate (2014). Other research found success in focusing on "reimagining" research-focused assignments via a library-led community of practice (Saines, 2019). Purdue's Instruction Matters: Purdue Academic Course Transformation (IMPACT) campus-wide, semester-long program partnered librarians with instructional developers in interdisciplinary teams of faculty to redesign courses in which IL is an important pedagogical consideration (Maybee, 2018; Levesque-Bristol et al. 2019).

For academic librarians wishing to support learning through faculty development, it may be more useful to focus on learning goals at the course or curricular level and to work in collaboration with campus partners, such as teaching centers. Using the 2019 Flierl article's analysis (2019) as a starting point, Bowles-Terry and Sobel concluded that libraries partnering with faculty development centers are likely to be more effective than faculty development by academic libraries alone (2022). Gibson and Mader agreed, indicating that librarians should seek other campus partnerships that focus on teaching and learning in higher education broadly, to realize academic librarians' capacity as educators (2019).

Informed Learning Design

Faculty development programs in academic libraries are typically underpinned by an IL model. The ACRL *Framework for Information Literacy in Higher Education* (2015) has been used to support

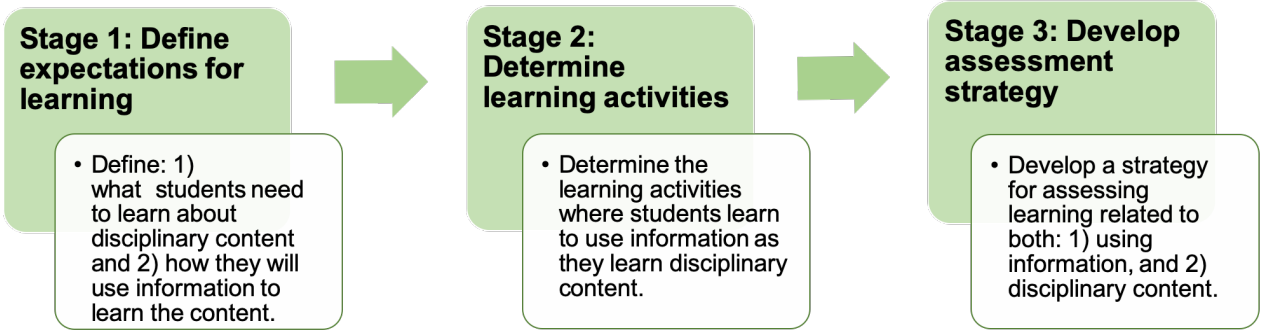
instructors developing IL assignments (Wishkoski et al., 2018). The CILC project utilizes informed learning design, which is especially apt for faculty development because it emphasizes the role that IL plays in enabling students to meet disciplinary learning goals (Maybee et al., 2019).

Informed learning design builds on informed learning, an approach to IL grounded in decades of theoretical and empirical research, which argues that using information is a fundamental part of learning (Bruce, 2008). Informed learning moves beyond a conception of IL as a set or sequence of skills (ACRL, 2000; Kuhlthau, 1993) to propose a "relational" approach to learning that views learning as developing new ways of understanding a topic (Bruce, 2008). Informed learning has been studied in a variety of contexts including teen social media use (Harlan et al., 2012), organizational management (Somerville, 2009), and higher education (Hughes & Bruce, 2012; Maybee et al., 2017). Informed learning holds three core principles:

1. build on learners' previous experiences of using information to learn
2. emphasize learning to use information and disciplinary content simultaneously, and
3. foster new awareness of both using information and disciplinary content (Hughes & Bruce, 2012).

Informed learning design describes a process for designing instruction that enables students to learn course content through the intentional use of information (Maybee et al., 2019). Leveraging the principles described above, informed learning design involves three stages (see Figure 1).

FIGURE 1
Stages of Informed Learning Design (Adapted from Maybee et al., 2019)



Informed learning design draws from variation theory, which suggests that, while there are many things one can learn about a subject, there are "key" things that students need to become aware of to learn as the instructor intends (Marton, 2014; Marton & Tsui, 2004). Informed learning design provides a framework for determining the key things related to using information and subject content students need to become aware of to be successful in a course or assignment.

Stage 1 of informed learning design focuses on the instructor's intentions for learning by identifying the content knowledge they want students to become aware of and determining how students need to use information to learn that content (Maybee et al., 2019). In Stage 2, the instructor determines the learning activities the students will engage in. Providing opportunities for learning to use information while simultaneously learning about the content, informed learning activities are often experiential and mirror disciplinary practices. Stage 3 of the design process focuses on developing a strategy for assessing learning, where students

receive feedback related to both their knowledge of and abilities to use information and their understanding of subject content.

Methods

This study investigated how informed learning design in the CILC project was supportive of librarians collaborating with classroom instructors to design student projects where students use information to learn. The research question guiding the study was:

> How does informed learning design support collaboration between academic librarians and classroom instructors to enable the creation of student projects in which students use information in disciplinary learning environments?

Aligned with the primary research question, the study was guided by two sub-questions:

- How does informed learning design enable academic librarians in their collaborative work with classroom instructors to design student projects in which students use information in disciplinary learning environments?
- How does informed learning design enable the creation of student projects in which students learn to use information in disciplinary learning environments?

Thematic analysis was selected as the research method for this study. Thematic analysis is a theoretically flexible method that allows for different approaches to identifying patterns and themes across qualitative data sets (Maguire & Delahunt, 2017). Braun and Clarke proposed a six-phase guide for conducting thematic analysis: 1) Become familiar with the data, 2) Generate initial codes, 3) Search for themes, 4) Review themes, 5) Define themes, and 6) Write-up (2006). Thematic analysis is iterative in nature, allowing for recurring phases of coding and analysis of the patterns emerging from the data. The research team followed Braun and Clarke's framework of moving from a broad impression of the project documents to coding, to analysis (2006).

Participants

Fifteen librarian-classroom instructor teams participated in a four-week program to design student projects that guided students to learn disciplinary content while also learning to use information. Classroom instructor and librarian participants were invited to participate in an institutional review board-approved research study (IRB#2020-232) to investigate how the informed learning design model supports collaboration to enable the creation of student projects in which students use information in disciplinary learning environments. Participation in the study was completely optional and did not factor into any aspect of participants' involvement in the CILC project. Eight teams agreed to participate in the research study. One team included two classroom instructors and one librarian, bringing the total number of participants in the study to seventeen. The classroom instructors came from various disciplines, including forensics, professional writing, pharmacy, journalism, music education, teacher education, environmental sociology, and chemistry.

Data Collection

Worksheets, librarian reflections, and post-implementation reports prepared during the CILC program were collected for analysis. Three worksheets were completed by the librar-

ian-classroom instructor teams to guide their collaborative efforts at the three stages of the informed learning design model: 1) defining expectations for learning (i.e., learning goals), 2) determining activities to address those goals, and 3) developing a rubric to transparently communicate expectations to students. In reflections collected at the end of the CILC program, librarians described their experiences of the collaboration, the benefits and challenges of using the informed learning design model for co-designing student projects, and how they would apply insights and takeaways from participating in the program to their practice as academic librarians. Post-implementation reports collected after the teams had implemented their student projects described aggregated student performance, insights about learning from the student projects, major takeaways from reading the student reflections about their learning, and proposed improvements for future iterations.

Analysis

Aligned with Braun and Clarke's thematic analysis framework (2006), the research team became familiar with the project documents and conducted a round of natural language coding. The codes derived from this process were used to develop a codebook; however, the research team determined through application that some of the codes were overly broad in scope. A sub-team analyzed the codes in conjunction with the research questions and the evidence from the project documents to create a revised codebook used for a second round of coding. The team met to norm on the codes across the project documents. This process concluded when no new themes emerged, meaning analytical saturation was reached. Following the coding process, the research team identified themes that were arranged into thematic categories, which comprise the major findings for the study.

Findings

The analysis of the data resulted in two thematic categories: 1) Shifts in Student Learning Goals, and 2) Librarians as Empowered Collaborators. The thematic categories describe how informed learning design supports collaboration between academic librarians and classroom instructors to enable the creation of student projects in which students learn to use information in disciplinary contexts.

Thematic Category One: Shifts in Student Learning Goals

The analysis of the worksheets and post-implementation reports revealed shifts in librarian-classroom instructor teams' articulation and framing of their learning goals. These changes were documented in the initial learning goals worksheet and in reflections on students' learning described in the post-implementation reports. Participant teams shifted their learning goals in response to: 1) engaging with informed learning design to communicate information-focused goals, and 2) recognition of broader learning goals, or 3) student performance and learning outcomes described by students.

Information-Focused Goals

Engaging with informed learning design prompted instructors to emphasize information-focused learning goals. Teams typically identified three to five learning goals to guide the development of their student projects. The most common learning goals were information-focused goals, such as effectively communicating with information, evaluating information, and synthesizing informa-

tion. Librarians recognized that this emphasis on information-focused goals was different from the status quo as instructors typically emphasize content-focused learning goals. The librarian working with the forensics course suggested that informed learning design shifts an instructor's focus toward how they personally use information in their discipline, saying: "Instructors tend to think about what do they want their students to learn, and informed learning reminds them to reflect on their own information seeking behaviors" (Librarian, forensics course).

Similarly, the librarian partnering with the climate change classroom instructor noted that forefronting information use led to more intentional identification of information-focused learning goals.

Broader Goals for Learning

Instructors identified additional learning goals that were often related to broader course-level goals. In addition to the learning goals instructors initially identified to guide student projects, instructors articulated in their worksheets and post-implementation reports learning goals that extended beyond the scope of the student projects but that the instructors described as important. For example, the instructor of the music education course reflected a desire for students to recognize that the project was intended to prepare them for their careers. This learning goal was not directly reflected in the stated student project goals, which focused on conducting an action research project. However, the instructor described the completion of the action research project as indication that the students: "have learned how to develop long-range lesson and curriculum planning, deliver lesson content, assess student learning and document growth, and reflect upon the outcomes in order to improve future teaching and learning" (Instructor, music education course).

The instructor of the forensics course reflected on students learning about the discipline broadly. Reviewing the student reflection comments, the forensics instructor noted that the students emphasized that "forensic evidence is much more difficult to collect and analyze than shown on TV." While the stated goals for the student project focused on using information, the need for students to recognize that forensic work was more rigorous and scientific than commonly depicted was an overall concern of the course that the instructor recognized post-implementation.

Goals Identified by Students

Reflection proved fruitful for several classroom instructor participants. Post-implementation reflection on student performance and students' perceptions of their learning prompted articulation of additional learning goals. The forensics instructor described the need to develop an additional learning goal focused on collecting information. The instructor of the writing course found from the students' reflections on their learning that they missed the opportunity to tailor their public health campaign to their local audience because they continued to believe that their information sources must be broadly recognized. The instructor reflected that they perhaps should draw on more broad forms of evidence in future iterations of the course:

> [I want my students to see that] there's more to research than sources and bibliographies, and that there's more to COVID-19 research than the same "authorities" everyone else has been citing. … research isn't just about name recognition,

> it encompasses timely and credible information from sources and source types that aren't quite so obvious (Instructor, writing course).

The writing instructor also recognized that students did not find information about the audiences' communication habits and preferences, which was an important yet tacit goal of the project that should be more explicitly addressed to help students learn in the project in future implementations.

Students sometimes expressed unintended learning outcomes in their reflections that resonated with instructors, leading to the inclusion of new learning goals for future offerings. Students in the chemistry course reported an increased appreciation for the need to examine the figures (i.e., data plots) in articles to enable them to understand the results. Realizing that many students did not engage with figures as they had assumed that they would, the chemistry instructor came to recognize the need for a learning goal specifically focused on strategies for reading scientific articles. The instructors of the pharmacy course reported that some students created visual representations of themselves as a way of presenting their personal and professional identities. Recognizing the value in alternative ways of presenting information, the instructors are considering creating a new learning goal focused on visual representation for future iterations of the course.

Thematic Category Two: Librarians as Empowered Collaborators

The librarian reports revealed that librarians were empowered as collaborators in assignment design. This was a rare or new role for some of the project's librarian participants, who were more accustomed to interacting with instructors in response to a particular request. Librarian empowerment was supported by the guidance offered by informed learning design, and more specifically, by the shared language provided by the design model.

Librarians felt empowered to shape student experiences. Guided by the informed learning design model, librarian participants recognized their role as mediators, sounding boards, partners, consultants, and as guides for prompting productive reflection to help reveal for instructors the disciplinary information practices relevant to their courses. They expressed that the model provided librarian-classroom instructor teams a path for exploring the instructors' pedagogical goals and challenges, as well as how information plays an essential role in learning. As information experts, librarians were able to identify the relevant information practices that are part of a course, unit, or assignment more clearly than disciplinary experts, who are not always conscious of the information practices ingrained in their academic and professional lives. This was exemplified by one librarian, who shared:

> The informed learning framework actually helped me to keep prompting [the instructor] to reflect on what information [she would] use as the discipline expert if she's asked to work on the student project … Also, it's interesting to learn, from interacting with the instructor, that instructors, as experienced information users in their discipline, may not have good clues of how to teach student information literacy. Academic librarians have a good place in integrating IL in course to maximize impact (Librarian, forensics course).

The librarian working with the climate change course described how conversations can increase awareness and bring information-related learning goals to the forefront:

> Where information literacy and students' use of information was previously considered a secondary consideration, our conversations resulted in more deliberate learning outcomes regarding these issues … The faculty member I worked with appreciated having a collaborator who was able to quickly identify opportunities to enhance IL skills in his course. Despite having an awareness of its importance, this wasn't something he necessarily had time for in the past so collaborating with a librarian made this possible (Librarian, climate change course).

In addition to providing a framework for pedagogical conversations, informed learning design provided shared language for librarian-classroom instructor teams. Collaborators who had previously worked together or possessed shared disciplinary expertise, such as a librarian who was a former professional chemist working with a chemistry professor, began the process with some shared vocabulary. This librarian shared that

> This made communication much easier for us as we already had a shared vocabulary and disciplinary understanding allowing us to work efficiently and spend more time debating various goals and choices, regarding what would benefit the students the most in addressing current weaknesses we see in graduate students that need to be addressed (Librarian, chemistry course).

However, for the librarian and instructor pairs who did not begin the project with a shared vocabulary, informed learning design provided one:

> I think foremost it [informed learning design] provided a defined vocabulary for both parties to start from… I think it was having this core concept that could ground conversations and help us focus on improving the assignment using the principles of informed learning design (Librarian, pharmacy course).

With shared vocabulary relevant to course design and information practices, as well as a framework for prompting conversation and reflection, librarian participants acted as empowered collaborators in designing learning experiences. Bringing information expertise to bear, they helped instructors draw out an assignment's information-related learning goals to enhance disciplinary learning. For librarians, using the informed learning design model provided new insights into articulating implicit learning goals related to using information and exploring new roles and capacities for librarians.

Discussion

The perennial challenges academic librarians face in explaining what IL is and why it is important to student learning may be circumvented when IL is framed as an approach for addressing a specific educational problem of interest to an instructor. For the librarians using informed learning design, there was little need to advocate for explicit conversations about

the merits of IL because the conversation remained focused on student learning, which is something inherently of interest to instructors seeking opportunities to develop their pedagogy. While the emphasis of the CILC program was in helping instructors reflect upon and improve a specific assignment, classroom instructors acquired a new lens through which to consider pedagogical improvements, such as designing learning outcomes, assessments, and learning activities that drew out the ways students need to use information to learn disciplinary content. Using informed learning design to develop instruction was not a goal unto itself but rather was presented as a method to overcome an instructional challenge that instructors wanted to address to best support their students.

This study is not without limitations. Like much qualitative research, the research findings are not generalizable to other professional development contexts. First, the research team actively recruited instructors and librarians for participation in the CILC program, so the study's sample population was not random or necessarily representative of the participating R1 institutions. The study has a small sample size with a diverse representation of instructor participants. While this disciplinary diversity was a practical strength for the learning community, it may make findings more challenging to apply to specific disciplinary contexts. Inconsistency in librarian-classroom instructor provided data is another limitation; as is frequently the case with written reflections, some participants were more effusive than others. Finally, it is necessary to acknowledge that the period during which data were collected for this study was the height of the COVID-19 pandemic. CILC facilitators, librarians, and instructors communicated exclusively via email and teleconference while managing a myriad of unique professional and personal challenges brought on by the pandemic. Doubtlessly, the pandemic influenced the courses in which instructors first offered their redesigned assignments; all occurred between the fall 2020 and spring 2022 semesters.

Despite challenges, the collaborations between librarians and classroom instructors to design their student assignments highlighted significant ways in which students need to use information to learn. While the teams began by thinking through intended learning goals and underlying challenges, the conversation shifted to how students are expected to use information in their disciplinary context and how strategic activities that have them simultaneously use information as they engage with disciplinary content may play a role in achieving desired learning goals. Instructors continued to reflect on the connection between information use and the disciplinary learning goals after the design workshops had concluded. In their post-implementation reports, several instructors identified the need to focus on additional learning goals that would better help students successfully carry out their projects.

While not a specific focus of this study, the research team was intrigued by the tendency of the classroom instructors to gravitate towards designing "authentic tasks." Lebow describes authentic activities or tasks as experiences of personal relevance that permit learners to practice skills in environments similar to those in which the skills will be used (1993). The journalism student project provides an example of this in which students analyzed information about the 1918 pandemic from historical news sources. Though the material being evaluated was historical, the tasks students worked on were contemporary and rooted in a particular profession. Likewise, the pharmacy course had students practice ways to promote themselves professionally, and the forensics course had students engaged in forensic practices used to prepare evidence for a trial. This merits future exploration to determine if there are common types of learning experiences in which disciplinary instructors identify a need for IL to enable student learning.

This study suggests that the informed learning design model was supportive of librarian and classroom instructor teams designing student assignments. An essential part of the collaborative process (ACRL, 2000), the design model provided instructor and librarian collaborators common language that helped to bridge varied disciplinary expertise. Yet, a design model on its own does not facilitate embedding IL into curricula in support of student learning. Rather, the informed learning design model provided a useful structure for academic librarians to practice faculty development, regardless of the kinds of collaborations with classroom instructors they were familiar with beforehand. Leveraging the expertise of both instructor and librarian, the informed learning design model provided practical activities and discussion prompts for drawing out disciplinary content and information practices that could frame the librarians' conversations with the classroom instructors.

As librarians continue to take on more faculty development work, they may be better positioned to make meaningful contributions to student learning and to get classroom instructor buy-in by utilizing educational design models, such as informed learning design, that place an emphasis on student learning. Aligning with the findings shared by Flierl and colleagues (2019) of librarians experiencing instructional design as being a co-educator, librarians in this study described feeling like collaborators who made meaningful contributions to improving student learning. Without librarians in this study feeling empowered by the informed learning design model, this project—or similar faculty development programs in libraries—would be much more difficult to execute well. As opposed to librarians addressing a specific instructor need by being brought into the classroom, our findings suggest that there is real value in librarians working collaboratively with faculty to design assignments that support students learning to use information in particular disciplinary or context-driven ways.

Of course, there is labor associated with academic librarians taking on faculty development work. Librarians in this study indicated that it took time and required sustained effort from both parties to maintain the relationship and undertake the design work. Yet, instructors indicate in their post-implementation reports a strong desire to continue to improve their assignments by creating new learning goals and designing more nuanced or tailored activities that enable students to learn to use information as they learn disciplinary content. Recognizing their capacity to help instructors address pedagogical challenges, librarians should seize these opportunities to sustain their partnerships with classroom instructors to design assignments that highlight the role information plays in the learning process. Librarians have the opportunity to engage in faculty development work to deepen and extend partnerships with instructors in support of learning. Librarians can repeatedly leverage informed learning design to collaborate in meaningful and effective ways with instructors to address pedagogical goals.

Conclusion

Findings from this exploratory study provide evidence for the efficacy of the informed learning design model in supporting collaborations between librarians and classroom instructors. Instructors described how more intentional engagements with information could further their disciplinary learning goals for their students. Academic librarians found that the model provided a useful framing for discussing IL in instructors' courses without anchoring the conversation solely on IL. This study finds that the strength of informed learning design in faculty development is that IL is naturally infused into conversations centered on learning. Framing pedagogical discussions around a design model, focusing on collaboratively solv-

ing pedagogical issues, and presenting IL as a solution to a challenge, all proved to be useful strategies.

The study also provides a foundation for future research. A future study could explore the use of informed learning design with a single cohort of academic librarians and instructors working in the same discipline to determine if related backgrounds and similar pedagogic ideas better support the design of assignments that teach students disciplinary information practices. Another study could be conducted that includes participants from institutions in other higher education classifications, such as colleges offering associate and baccalaureate degrees, to allow for a comparison between various educational settings. Such research would build on the study presented here, which suggests strong potential opportunity for future growth in faculty development for and with academic librarians aiming to embed IL into disciplinary curricula.

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Autistic Librarians in the Academic Library Hiring Process

Rachael Anne Cohen, Payton D. Cooke, Michael Holt, Megan Lounsberry, Erin Roga, Karen Stoll Farrell, and Jade Squires

Academic library literature contains several studies on the experience of autistic students navigating the world of higher education and its libraries. However, very little is published on the employment experiences of autistic academic librarians. This study attempts to examine employment barriers for autistic people currently or previously employed in academic libraries in Australia and the United States. It employs the use of a survey to examine the recruitment process for academic library jobs in both countries. The study analyzes survey responses to reveal barriers that exist for autistic librarians seeking employment in a higher education library setting. Finally, the study suggests recommendations to make academic library recruitment more inclusive of autistic people.

Introduction and Background

A commitment to diversity, equity and inclusion is a key feature of libraries, and there is increasing awareness of the need to recruit and retain more diverse staff. Equity, diversity and inclusion is one of the core values of the Association of College and Research Libraries (ACRL), which states that academic libraries have a role in "embodying diversity in the profession" (2022, November, para. 8). A strategic priority of the Australian Library and Information Association is supporting a diverse workforce (ALIA, 2021), and it recommends opening career opportunities for people with disabilities (ALIA, 2019). These policies demonstrate the importance of all forms of diversity in academic library staff.

Academic library literature contains several studies on the experience of autistic students navigating the world of higher education and its libraries. However, very little is published on the employment experiences of autistic academic librarians. Anderson (2021a; 2021b) has published two of the only other known studies that attempt to gauge the experience of employed

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autistic librarians. This study aims to build on these studies by examining employment barriers for autistic people currently or previously employed in academic libraries in Australia and the United States. These two countries were selected due to the geographic locations of the authors and because they noticed differences in hiring practices across the two countries. Most notably, the Australian selection process was more standardized and focused on skills and experience than the United States, where soft skills and criteria such as "fit" were more commonly employed. The study uses a survey to examine the recruitment process for academic library jobs in both countries. The study compares survey responses between the two countries to reveal any barriers that exist for autistic librarians seeking employment in a higher education library setting. Finally, the study suggests recommendations to make academic library staff more inclusive of autistic people.

As this study centers on the experience of autistic librarians, it is important to define autism. According to the Autistic Self-Advocacy Network, autism is characterized by differences in socialization, communication, and sensory input, but how these traits manifest varies widely from person to person (n.d.). Autism exists on a spectrum, but it is not a straight line from "low functioning" to "high functioning." More accurately, the autism spectrum can be thought of as being composed of several gradients across a circle, like a color wheel indicating the strengths and challenges of an individual autistic person. Once considered to be primarily found in young, white male children, improved diagnostic criteria, screening and reporting procedures, greater public awareness, changes to the definition of autism spectrum disorder (ASD), and improved diagnostic ability, has led to more groups—including girls/women, nonbinary people, and people of color—being identified as being on the autistic spectrum (Shea & Derry, 2019, p. 327). As of 2019, Spectrum reported that one in 40 children in the United States is autistic, and in Australia the prevalence is around one in 50 children (Wright, 2019; May et al., 2017).

Autistic knowledge production now includes more autistic voices thanks to the neurodiversity movement, as well as to autistic scholars and advocates demanding that their voices and lived experiences be included in the body of knowledge surrounding autism (Fletcher-Watson et al., 2019). Botha (2021) describes the flaws in current psychological research processes by pointing out that inherent biases exist in the methodology of psychological research as well as a scientific objectivity that dehumanizes and objectifies autistic people: "'Objectivity' in the scientific method ensures the absence of bias; however the social and cultural environment in which the questions are being examined are not free of bias" (p. 8). The inclusion of autistic voices in autism research has also led to the revelation of a phenomenon called camouflaging or masking, which describes a behavior exhibited by autistics who hide their more obvious, stereotypical traits (e.g., stimming) in an effort to fit in with their social environment (Pearson & Rose, 2021).

Finally, the increasing prevalence of autistic voices can be attributed to the neurodiversity movement. Neurodiversity refers to the neurological variation in all human brains regarding sociability, learning, attention, mood, and other mental functions in a non-pathological sense. Australian sociologist and autistic self-advocate Judy Singer coined the term in her honors thesis published in 1998. For this paper, the neurodiversity-based approach to disability is useful (Lawrence, 2013). Currently, two main models of disability generally reign supreme: the social and the medical. While the medical model of disability places the "blame" of disability on and within the individual, the social model of disability suggests that disability

is located in society (Shea & Derry, 2019). This paper chooses to look more critically at the intersection of these models, through a neurodiversity lens, recognizing that while disability can be understood as a physical, neurological, and/or biological difference, it is exacerbated by systemic and societal ableism.

Positionality Statement

Before beginning a study of autistic individuals in the academic library hiring process, it is important to disclose the positionality of the authors. All authors of this study identify as autistic, with a balanced mixture of official and self-diagnoses. Four authors were initially recruited through a Facebook group for autistic librarians and allies with a call to research hiring challenges for academic librarians. The remaining authors joined the project after being recruited by the original authors. All authors are white (non-Hispanic) and are primarily cisgendered females, with one identifying as non-binary and one identifying as a cisgendered male.

A Note on Language

This paper also uses identity first language (i.e., autistic people) rather than person first (i.e., person with autism). While we understand that when speaking with individuals it is important to respect their preferences, a recent study found the Autistic community generally prefers identity first language (Keating et al., 2023). Language used by authors in quotations and references has been retained.

Literature Review

Despite the increasing scholarly interest in autism—as well as the recent analyses and criticism of the unstructured, social aspects of academic library hiring—there are few resources on the relationship between all three factors: autism, academic libraries, and recruitment. In two qualitative studies, Anderson (2021a; 2021b) identified eight common themes across autistic librarians' job seeking and workforce experiences including (but not limited to) barriers, accommodation, and accessibility; disclosure as context-oriented; and expectations for managers. Giles-Smith and Popowich (2023) found autistic academic library workers face discrimination and respond by masking, which leads to difficulties when requesting workplace accommodations. Pionke (2023) describes several first-hand experiences of "the good, the bad, and the ugly" of academic library interviews from disabled applicants. Although the recommendations include potential applications for autistic librarians, they are intended for a wider audience of disabled librarians and do not address autism-specific experiences or needs.

Beyond these studies, there is little current research studying the cross-sectional experiences of autistic librarians' experiences with the job seeking and hiring processes in academic libraries. As a result, we first consider the work that has been done in three broader cross-sections: autism and employment; autism and librarianship or academia; and academic library hiring practices. This will provide a strong foundation for later observations and synthesis.

Autism and Employment

Recent improvements in the research and understanding of ASD suggest that autistic people exist in the workforce in larger numbers than ever before. However, in Australia, only 38% of working age autistic people are employed, compared to 53% of all people with a disability and 84% of people without a disability (Australian Bureau of Statistics, 2019). While there

is not the same level of comprehensive statistics from the United States, a report found that only 58% of young adults on the autism spectrum had ever been employed (Roux et al., 2015).

Studies such as Bublitz et al. (2017) and Anderson et al. (2021) have attempted to explore the reasons behind autistic un-/underemployment and recommend vocational interventions, particularly in college student and young adult populations. These studies use person-first language, do not include autistic voices outside of the data and tend towards deficit-based perspectives. However, they do highlight job seeking as a more difficult process for autistic candidates and recommend the principles of universal design, which seek to make environments usable, accessible and convenient for all (Milton et al., 2016), alongside the recognition that "many barriers to employment [have] less to do with a [candidate's] characteristics and more to do with larger systems and external realities including prejudice, organizational inflexibility … and lack of services." (Anderson et al., 2021, p. 98). Some studies choose to focus more particularly on these characteristics, framing them as "autistic strengths" which can include superior creativity, focus, increased efficiency, honesty, dedication, and the ability to offer a unique autism-specific perspective (Cope & Remington, 2021; Chartered Institution of Personnel and Development & Uptimize, 2018). Still others problematize this perceived "autism advantage," seeing it as positive stereotyping and non-reflective of the heterogenous experiences of the autistic population (Bury et al., 2019). The variety of frameworks, perspectives, and results of these studies indicate the continued need for research in this area.

Some researchers have chosen to investigate the question of low autistic employment from the side of the employer, leaning more into the social model of disability as they explore employer perceptions of, and biases against autism, as well as autistic characteristics as barriers to employment. McMahon et al. (2021) determined that the employer's prior knowledge of ASD and autistic characteristics significantly influenced perceptions of a candidate's employability and recommended employer-based interventions to increase employment among autistic individuals. Mai (2019) argues that "hiring agents' beliefs and associated discriminations are what prevents them from hiring qualified autistic candidates to fill open positions" (p. 8). Similarly, Whelpley and May (2023) found that atypical social behaviors and actions consistently and adversely affected employer's perceptions of candidates and interview outcomes, noting that when social performance is removed from the hiring process, autistic candidates were considered more competitively with neurotypical candidates.

Autism in Libraries and Academia

Despite anecdotal evidence that librarianship can be fulfilling and meaningful work for autistic individuals, Everhart and Anderson (2020) echo Lawrence's earlier suggestion that "there is 'virtually nothing in the LIS literature discussing autistic librarians or information professionals'" (2013, p. 103). Instead, articles gravitate either towards the wider lens of disability in librarianship or disability and autism in academia (Farahar & Foster, 2021; Hollich, 2020; Moeller, 2019; Oud, 2018; Pionke, 2019, 2023). Early studies rarely consider autism in the library workforce. Instead, the research and advice tends to focus on library design and services for autistic *users*, particularly children. Indeed, case studies of employment for autistic individuals in libraries continued to remain largely anecdotal until Strub and Stewart's article in 2010, which describes the "implications" involved with hiring and supervising a non-professional autistic employee. Despite the explicit ableism of a stereotypical perspective of autism, it is important to note the relative recency of these viewpoints, which often continue to reinforce

stigmatizations and create barriers for autistic librarians and information professionals. As Lawrence points out, "in the total absence of materials on Autistic professionals [this article] may do more harm than good" (2013, p. 103).

In part, the lack of research in this area may be related to incomplete counts of disability in academia and academic libraries (Brown & Leigh, 2018). Although some studies have shown diagnostic disclosure to have positive benefits, the possible negative impacts of disclosure—such as stigmatization and discrimination—make many individuals wary of sharing their disabled, neurodivergent, or autistic identities with colleagues or employers (Hollich, 2020; Lindsay et al., 2019; Moeller, 2019). As a result, the numbers of disabled and autistic librarians are almost certainly higher than research would suggest. Moeller (2019) goes into depth on disclosure as "risk management," connecting it with potential precarity in librarianship: "rather than assume the risks associated with disclosure, individuals may instead conceal their disability or disabilities in an act known as 'passing'" (Moeller, 2019, p. 465). While passing can be intentional or unconscious, many studies have revealed it to be exhausting and damaging to an individual's mental well-being (Pearson & Rose, 2021; Hollich, 2020; Hull et al. 2021). Giles-Smith and Popowich (2023) identify masking/camouflaging, job precarity, and risks of disclosure as themes in the responses to their qualitative survey of autistic academic librarians in Canadian institutions.

Academic Libraries, Employment, and Hiring

A far greater number of studies have been conducted about academic library interview and hiring practices than in either of the previous two sections. Guidance for job seekers on common interview questions, hiring timelines, application documentation, and more is well-documented throughout the field, especially due to the complexity of academic library job applications in comparison to other library types (e.g., Franks et al., 2017). In 2021, the Core Academic Interview Project Team (Arch et al., 2021) published a report of best interview practices aligned with three guiding principles: structure and consistency; preparation and planning; and the danger of "fit." This last principle is of particular importance to the current study and deserves particular attention.

A significant selection of literature in the library field argues for the importance of hiring for "fit." Gaspar and Brown (2015) argue that "fit is essential" and liken the search process to matchmaking between the library and candidate, emphasizing the importance of being able to analyze and judge candidates' affective and social skills as a marker of fit. However, the idea of "fit" and a consistent measurement of what a "good fit" would constitute, are not defined.

As Cunningham et al. (2019) point out, the concept of "fit" in the context of hiring is varied, ill-defined, and often intangible. Referencing Powell (1998), the authors argue that most often the concept of fit in academic libraries is tied to "person-organization" fit. When put into practice, hiring for good fit is ultimately a practice of reproducing the status quo within an organization, threatening diversity initiatives (Cunningham et al., 2019; Arch & Gilman, 2021). Judgment of a candidate's fit often relies on interpretations of social performance (Arch & Gilman, 2021). Social elements of the academic library interview process, including candidate meals, presentations, and a candidate's nonverbal behaviors can unintentionally introduce biases into a search committee's decision-making (Arch & Gilman, 2021). While these authors do not mention autism, the implications of fit and social performance can be uniquely difficult for autistic candidates who must make the choice between masking (i.e.,

exhaustively monitoring autistic behaviors and 'acting' neurotypical) or disclosing (i.e., potentially opening themselves up for stigmatization or discrimination). Recommendations for reducing the impact of "fit" on hiring decisions include providing implicit bias training for search committees, creating and providing structures such as rubrics for evaluating the interview, and ensuring the same questions are asked to all participants in the same order, ensuring an equitable interview experience (Arch & Gilman, 2021; Cunningham et al., 2019).

Methodology

This cross-sectional study explores the experiences of autistic people when applying for jobs at academic libraries in the United States and Australia. It used a mixed methods approach as this provides the benefits of both quantitative and qualitative research, allowing for reliable results as well as in-depth, personal responses about peoples' experiences. The survey was therefore designed to include multiple choice, ranking, matrix questions, and free text responses (see Appendix A). As the research centers autistic voices, only people who identify as autistic were eligible to complete the survey, excluding non-autistic family members, carers, professionals, and library staff.

This study was approved by the ethics board of Federation University (reference number 2023/012) and the Institutional Review Boards of Louisiana State University (IRBAM-22-1359) and Indiana University (Protocol Number 16688). Respondents could add their email address in a separate survey to be entered into a random drawing to win one of 30 vouchers worth $25 USD funded by an Indiana University Libraries Support Grant.

The survey was limited to autistic adults who have engaged in the hiring process of an academic library in the United States or Australia. Purposive sampling was used to meet the criteria of the study. There was no desired sample size sought as it is not known what proportion of academic library staff are autistic. The survey was distributed through the researchers' social media networks, autism advocacy organizations, and memberships of professional organizations, such as the Australian Library and Information Association and the American College and Research Libraries. A link to the survey with a request for distribution was sent to the selected contacts on February 17, 2023, and a follow-up request was sent on May 23, 2023.

Using Qualtrics, an online survey was created based on themes around recruitment and autistic people as identified in the literature. Two identical versions were created, one distributed through outlets in the United States and one for Australian outlets. This was to ensure compliance with the ethics approval conditions of all institutions. As well as demographic and background questions, participants were asked about their education and employment history, their experiences with job advertisements and applications, disclosure of autism during recruitment, and free text about how the process could be more inclusive.

The data was downloaded from Qualtrics into Excel spreadsheets. Only responses which met the inclusion criteria were included in the analysis. Descriptive analysis only was conducted as the respondent numbers were not large enough for statistical significance analysis.

Results

When considering the results it is important to understand the differences between recruitment processes in the United States and Australia. In the United States, most library positions require an American Library Association accredited Master's degree in Library Science. The recruitment process usually begins with a job advertisement, requiring a cover letter, resume,

and a list of references. When selected, candidates usually attend an initial remote interview, followed by a final on-campus interview, though not all institutions follow this exact process. In Australia, universities set their own recruitment processes; in general, applying for a role in an academic library requires submitting a resume, cover letter and written responses to selection criteria, followed by an interview of about one hour in which identical questions are asked of each candidate.

Respondents showed a variety of demographic characteristics (see Table 1). The majority were female (58%) and white (75%) with greater variation in respondents from the United States. The most common age range was 35-44 (37%), although respondents from Australia were younger than those from the United States. Most held a master's degree (78%), however in Australia this was less pronounced. Overall, self-diagnoses and official diagnoses were almost equal, but in Australia participants were more likely to be self-diagnosed.

There were 31 survey responses from Australia, of which 26 met the inclusion criteria, and 91 survey responses from the United States, of which 83 met the inclusion criteria. Thirteen respondents from the United States and four from Australia did not complete the survey fully, resulting in partial data for these participants. Results were calculated according to the number of responses received for each question.

TABLE 1
Sociodemographic Characteristics of Participants

Baseline Characteristics	Australia	United States	Total
	%	%	%
Gender			
Female	85	55	58
Male	5	19	14
Non-binary	10	26	20
Age			
18–24	5	2	2
25–34	52	25	32
35–44	24	41	37
45–54	14	23	21
55–64	5	7	6
65+	0	3	2
Diagnosis			
Professional	31	51	45
Self	69	49	55
Education			
Masters	58	87	78
Other	42	13	22
Ethnicity			
Black	—	9	7
Bi-racial	—	7	5
Jewish	—	4	3
South Asian	4	—	1
White (Hisp/Latinx)	4	11	9
White (Non-Hisp)	69	70	75

Employment

Most respondents worked in an academic library (see Figure 1). Half of Australians are relatively new to the library workforce while respondents from the United States have been working in libraries longer (see Figure 2).

Applications

The number of applications submitted for academic library roles ranged between zero to 100, and the number of interviews between zero to 40. While most had submitted one to 10 applications, there were 21% who had submitted over 30, indicating the challenges of securing a

FIGURE 1
Type of Library Worked In

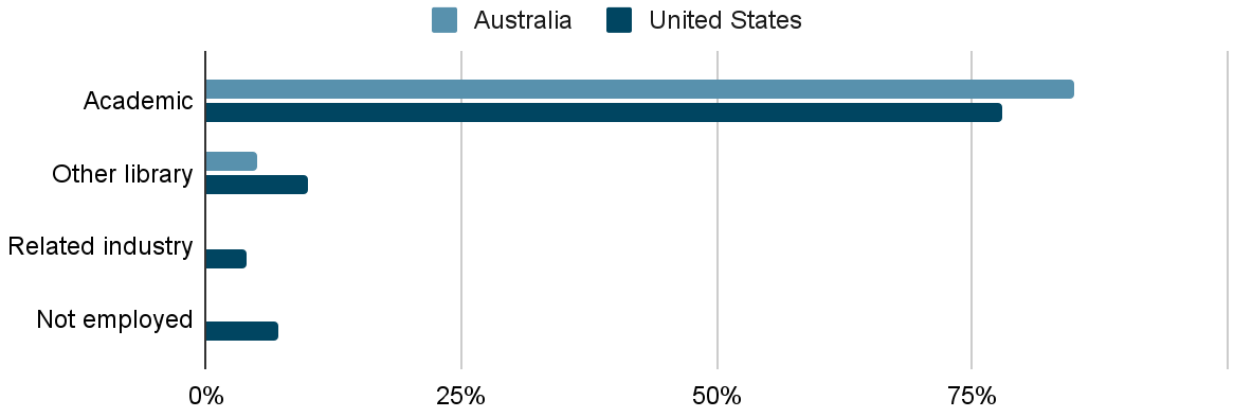
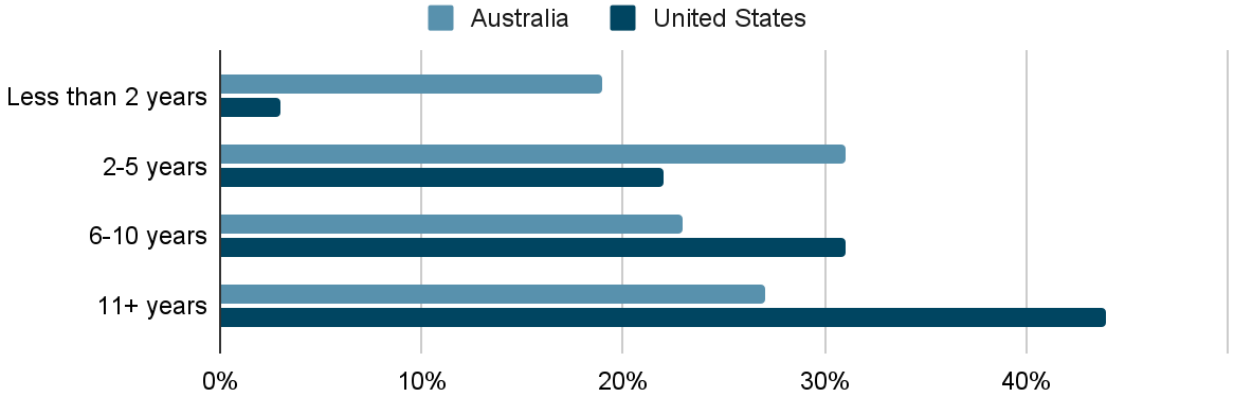


FIGURE 2
Time Employed in Academic Libraries



job in academic libraries (see Figure 3). Most respondents had attended one to five interviews, and United States respondents were more likely than Australians to have attended a larger number of interviews (see Figure 4).

FIGURE 3
Number of Job Applications Submitted

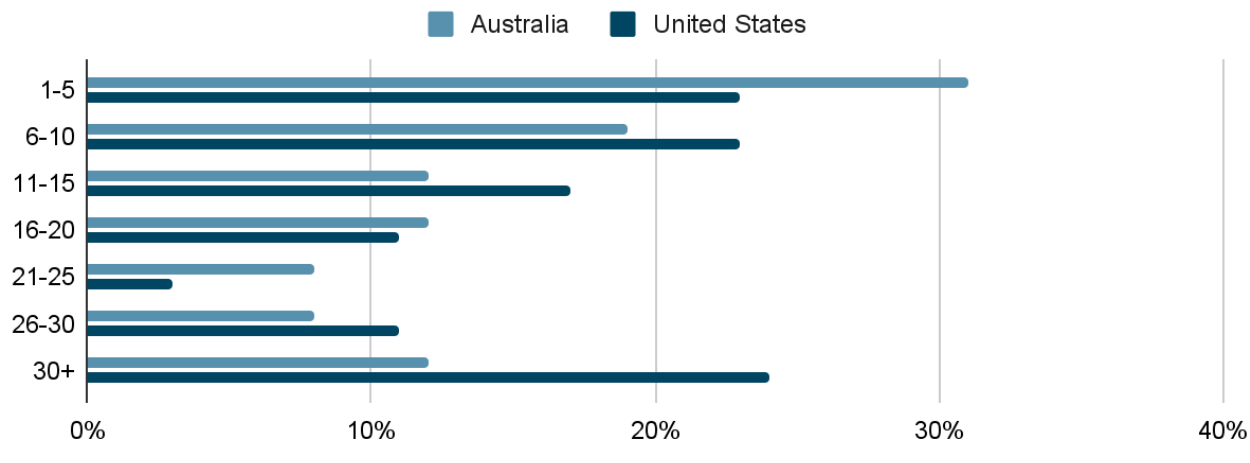
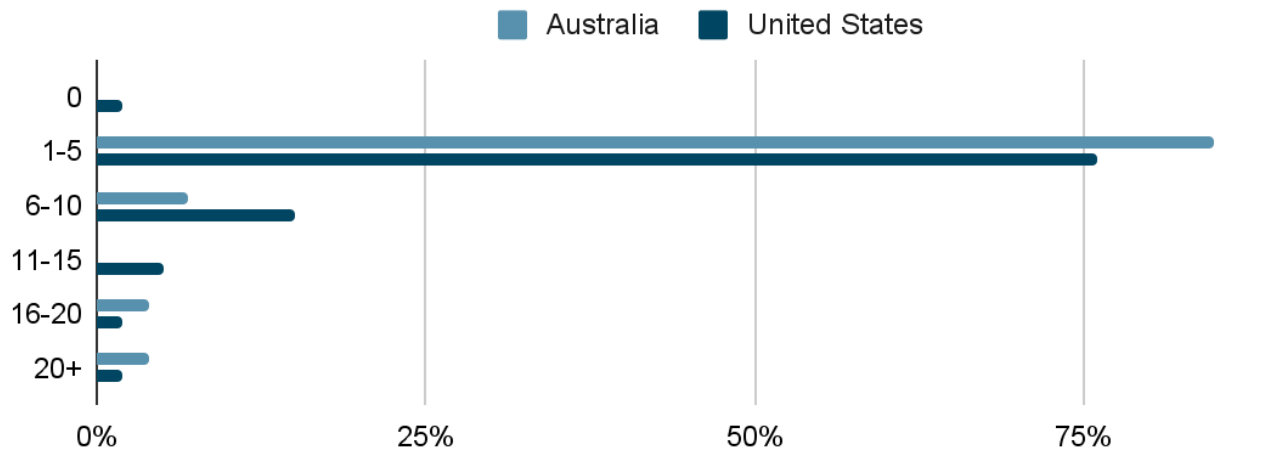


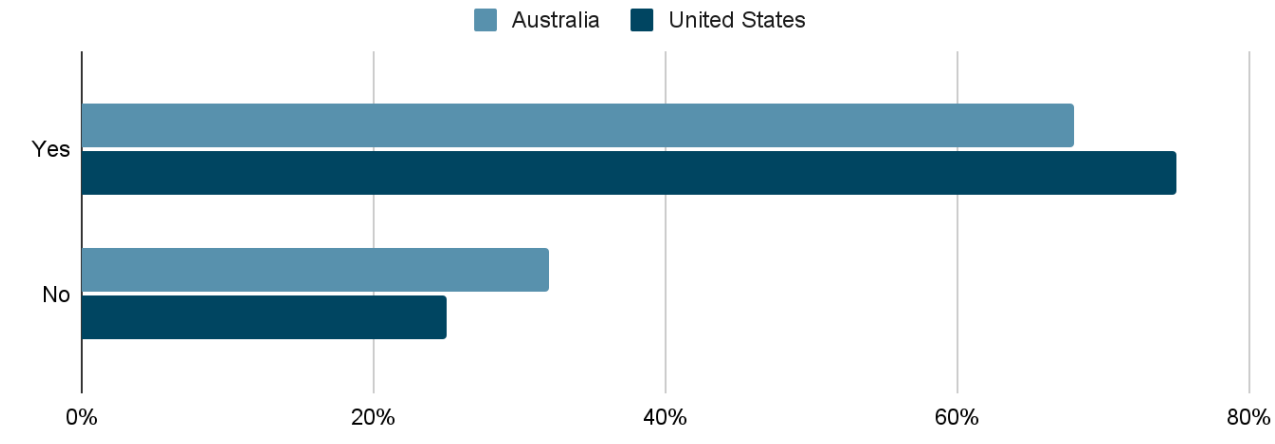
FIGURE 4
Number of Interviews Attended



Information Sought from to Evaluate Acceptance

The most common items looked for to evaluate autism acceptance in the library or institution were support services available to neurodivergent staff and students, and diversity statements or programming (see Figure 5). Six respondents from the United States also looked for the language used about neurodiversity or used word of mouth and informal conversations to gain insights.

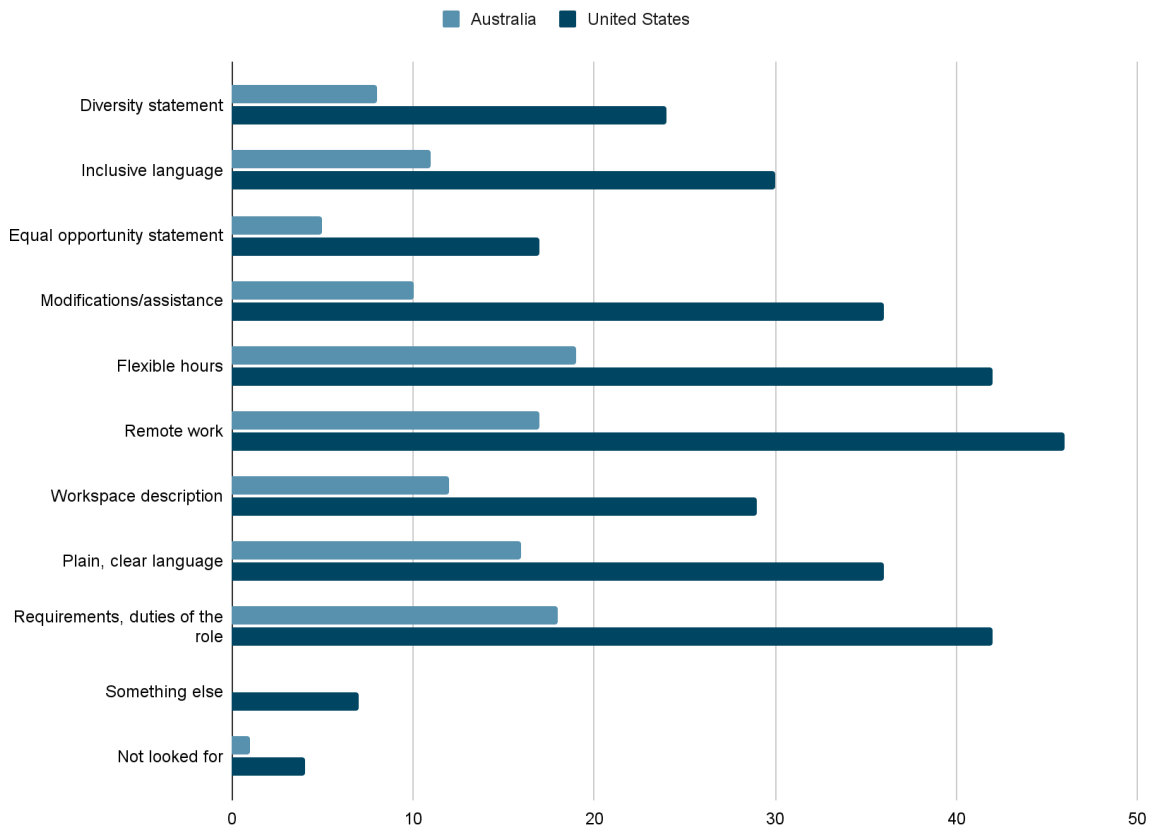
FIGURE 5
Consideration of Acceptance as an Autistic Person Looking at Job Ads



Information Sought or Wished For

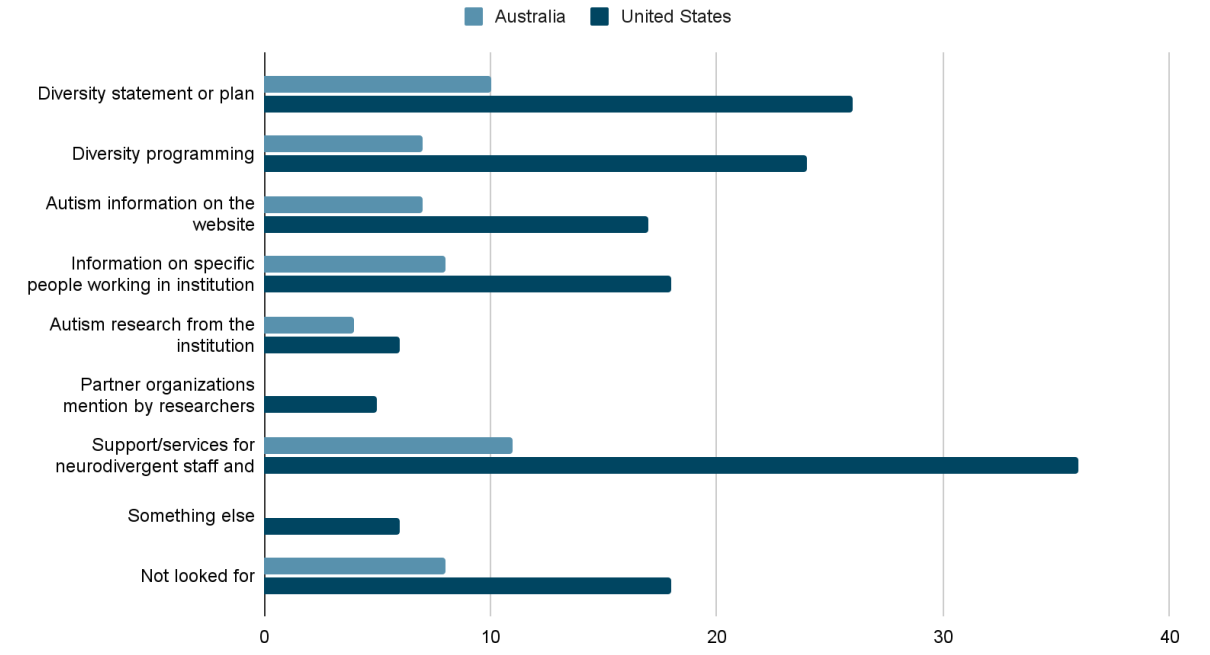
The most common information looked or wished for by respondents were the possibility of remote work, flexible hours and the requirements and duties of the role (see Figure 6). Seven respondents from the United States indicated they looked for other things including self-disclosure of employees, university documents addressing their approach to autism (deficit centered vs. person centered), realistic criteria for candidates and the amount of time per week needed for interactions like phone calls and meetings (see Figure 7).

FIGURE 6
Information Sought or Desired in Job Ads



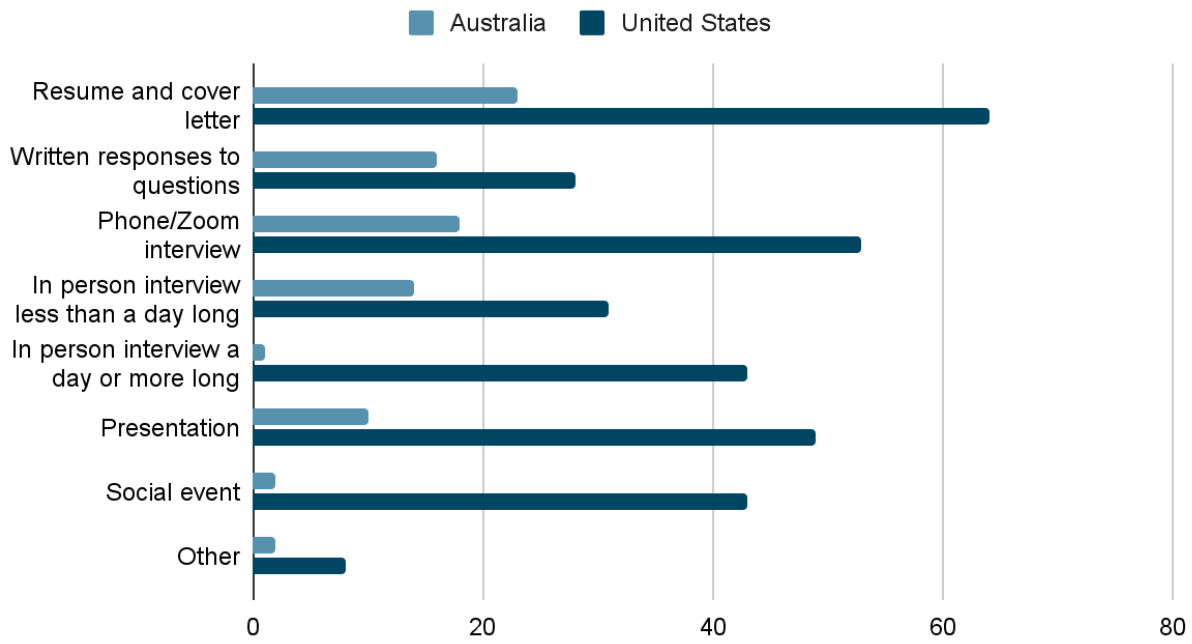
Note: Selection of multiple responses possible

FIGURE 7
Information about the Library or Institution Sought or Desired in Job Ads



Note: Selection of multiple responses possible

FIGURE 8
Job Interview Process Activities



Note: Selection of multiple responses possible

Application Process

The most common job interview activities undertaken by Australian respondents were submitting a resume and cover letter, a phone or online interview, and written responses to questions. Only one had an interview more than a day long, and only two had social events. In the United States, the most common tasks included submitting a resume and cover letter, a phone or online interview, and a presentation. The least common task was written responses to questions or prompts (see Figure 8).

When analyzing the survey question that asked respondents to rank what activities they found most and least challenging, it is important to remember that responses were not the same across all who replied to the survey. Some people only ranked one or two activities, while others ranked several. Therefore, the study only reports items that were selected as "most" or "least" challenging in each country.

Submitting a resume and cover letter was most often selected as the least challenging activity for both United States and Australian respondents. The most challenging tasks selected for Australians were interviews, while for respondents from the United States, it was submitting a resume and cover letter. One United States respondent found an interview with non-library administration least challenging, while for others the most challenging was campus or library tours. While there was an overall trend of activities found most and least challenging, all activities were rated as most and least challenging by different respondents, apart from social events in Australia.

The most common information given prior to an interview was general institute or library information and a schedule. The most common items not received were information about accommodations for disabilities and interview questions; however, these were the most desired items. Australian respondents were more likely not to receive information about promotion and tenure.

Only 13% of United States respondents and 4% of Australians disclosed an autism diagnosis during recruitment. No Australian respondents and only 6% of United States respondents requested accommodations, which were extra breaks, receiving interview questions in advance, and aid from an outside hiring agency. However, this should not indicate a lack of need for accommodations as roughly a quarter of Australian and half of United States respondents created their own accommodations, such as bringing their own supplies, requesting breaks, fidgeting under the table, asking for further tours, and arriving early to mentally prepare.

Qualitative Data

The survey also asked respondents to address two free text questions. The first asked how the recruitment process could be more inclusive of autistic applicants. Comments mirrored information respondents wished they had received in advance, such as information about requesting accommodations and receiving interview questions in advance.

Regarding making the process more inclusive, many comments were about interview questions, particularly providing them in advance. One Australian respondent stated:

> I would love to be given the questions in advance—I take some time to fully get my head around information, and I understand it far better in writing. I think it would enable me to better grasp what the question entails and answer the questions far more substantially and effectively.

Some also expressed opposition to the types of questions asked, suggesting a more task- based approach. One United States respondent noted:

> Give interview questions in advance. Give a written reference test. This used to be the standard years ago. For example, which source would you direct a student to who is looking for pro/con arguments on gun control? These types of questions and tests allow autistic people to show off their skills. Instead, interview questions have become much more relational and situational. Answering how you would handle a certain situation on the fly is very hard for an autistic person.

Others commented on the need for questions to be asked clearly and one at a time due to auditory processing issues. Some respondent desired a less formal process and a less constricted time period for the interview.

The need to understand and accept differences in the mannerisms of autistic people—such as not making eye contact or differing speech patterns—was also noted. This relates to the over-reliance on social occasions to assess candidates. As one United States respondent succinctly stated: "The job mostly involves sitting at my computer. You don't have to enjoy having lunch with me." Other themes included both acknowledging and actively seeking neurodiverse candidates and making adjustments that would be beneficial to all candidates, not just those with autism.

One of the most common themes of the United States responses centered on the exhaustive nature of the full day in-person interview. Of the 58 responses received for this question, over a third mentioned the need for breaks or the grueling nature of the in-person process. As

one respondent noted, the process of full day interviews, plus overnight stays in unfamiliar places means "definitely never going in at your best.

The second free text question asked what respondents wished people knew about recruiting autistic people. Though one respondent made the valid point that "there is no one way to be autistic," there were themes that emerged. For example, participants wished that recruiters knew autistic peoples' stress and anxiety levels may be higher than neurotypicals in an interview situation, and that masking to appear neurotypical takes a lot of energy and creates even more stress. One respondent said:

> I have to tune my brain up to 100, and channel the thoughts, ideas, behaviours and responses that I remember from previous recruitment scenarios and hope that they help me seem less anxious about how helpless and ignorant I feel. I wish people knew how much energy it takes to appear as "normal" as possible when you are hyper aware of how not normal you feel, and that is taken in to account or accommodated better during in interview.

Respondents also emphasized the need for understanding of autism by recruiters, with one Australian respondent commenting: "I wish people had a better understanding of common autistic mannerisms and behaviors, and didn't silently judge us for these during job interviews." It was also mentioned that the changes autistic people are asking for would help everyone applying for a position. Respondents wanted recruitment to be overall more relaxed and inclusive, with clear structure and expectations. They also provided some concrete suggestions, such as being able to provide written responses to interview questions, giving more time to respond, a choice of an in person or online interview, and a more practical, task-based approach.

Several respondents also highlighted the need to understand that people with autism are worthy and capable of doing their jobs. As one respondent stated, "We're not broken, and we don't make bad employees." They challenged the notion of a 'good fit' and wished recruiters were more open to the type of person they considered suitable for the role. One respondent stated: "Don't make an assumption about what someone's personality is like or their capability to progress based on their being autistic. Create an inclusive environment that gives people the opportunity to thrive!"

There were also several comments about disclosing an autism diagnosis and how fraught that can be. Respondents noted concerns about the potential stigma and judgment, as well as how this relates to autistic mannerisms. Overall, it is important to remember that even if a library is open to neurodiverse candidates, it can still be a difficult process for someone with autism. One respondent highlighted this, stating:

> While an institution may not discriminate against autistic people, the fear of being discriminated against, treated differently, or dismissed from recruiment [sic] is very real. The academic library interviewing process is extremely stressful and not everyone performs in the same ways that neurotypical people do. Finding a balance between getting the courage to ask for accommodations while not being treated as "different" can be a struggle.

Discussion

Although the academic library recruitment process is very different in the United States and Australia, the study found similar results in responses from both countries. The importance of remote work, flexible scheduling, and clear description of the duties of the role were important to applicants from both countries. Working remotely has been identified as a way of reducing the stress and sensory overload of being in an open plan office, increasing the ability of autistic people to work more productively in academia (Jones, 2022; Martin, 2021). During the COVID-19 pandemic, working from home gave people with disabilities a way to work with reduced distractions and sensory overload, improving their mental health, and had no associated drop in productivity (Williamson et al., 2023, July 25). Clarity in roles, instructions, and communication all support autistic people at work and can help them perform at their best, while reducing the amount of stress (Diener et al., 2020; Waisman-Nitzan et al., 2021). The COVID-19 lockdowns amply demonstrated that remote work is possible and beneficial for those with disabilities; these are practices that can make working in an academic library more inclusive for all.

A surprising result was found in the demographics of respondents from the United States: of respondents who indicated their gender, just over a quarter identified as nonbinary. Research has found autistic people are more likely than the general population to be gender diverse, possibly due to less concern about how they are viewed by others because of the social differences and ambivalence to social norms inherent in some autistic people (Corbett et al., 2023; George & Stokes, 2018). This intersectionality adds difficulty in finding employment as gender diverse people already face discrimination during recruitment (Bates et al., 2021). It also means they must navigate multiple sources of stigma when seeking employment.

One area with significant differences between the countries was the activities undertaken as part of recruitment, which reflects the differing hiring processes. In the United States, respondents were much more likely to have undertaken interviews lasting at least a day, and in Australia, they were more likely to have provided written responses to questions. Lengthy interviews are seen as a "test" of applicants' endurance (Houk & Nielsen, 2023) but even short interviews are a major source of stress and anxiety for autistic people and require masking for long periods of time (Finn et al., 2023). It is also questionable whether each person being interviewed receives equal treatment; the longer timeframe and social elements mean each person is less likely to be asked identical questions throughout the day. In Australia, the standard selection criteria used to shortlist interview candidates, as well as the set questions for each interview, means that Australian library applicants have more chance of being treated equally and evaluated on their skills, rather than personal biases of the selection committee (Arch et al., 2021).

The mixed results of what activities respondents found most challenging exemplify the heterogeneous nature of autism, and the variation in each autistic person's experiences (Masi et al., 2017). Autism researcher Stephen Shore is attributed with the statement, "If you've met one person with autism, you've met one person with autism." While difficulty with social situations and verbal communication is often identified as a trait of autism, this is not the case for all, demonstrating the need to avoid stereotypes. As one Australian participant pointed out, not all autistic people are introverts. Other autistic traits, such as difficulty with eye contact, a need for structure, or sensory overload can be difficult to manage in high stress environ-

ments such as job interviews (Finn et al., 2023). Recruiters' understanding and acceptance of autistic people can go a long way in making the process more inclusive, as this allows autistic people to expend less energy masking autistic traits and worrying about being judged or discriminated against (Anderson, 2021a; Anderson, 2021b; Davies et al., 2023; Finn et al., 2023).

Respondents called for employers to accept all types of people and to understand that being autistic does not mean they are incapable of doing the job. Gaspar and Brown (2015) state that fitting in with the existing workplace culture is essential to enable collaboration, and includes skills such as sharing values, communication, socializing, and understanding leadership structure. A "good fit" in academic libraries means personality traits such as confidence and friendliness (Cunningham et al., 2019), but these can be challenging for autistic people due to differences in communication style, comfort with socializing, and not accepting norms of social hierarchies. Selecting candidates based on their perceived ability to be a "good fit" with the organization not only discriminates against autistic people but leads to a less diverse workforce overall.

A very clear result from both countries was an unwillingness to disclose. This is an important result as it indicates that the stigma around neurodiversity may still be such an issue that prospective librarians with autism or other neurodiverse diagnoses are not comfortable presenting their authentic selves during an interview. Organizations looking to create a supportive environment for individuals who are neurodivergent may want to examine what components of their interview process and organizational presentation and policies might make individuals hesitant to disclose their diagnoses.

Limitations

Though the study identified several potential ideas for future efforts to improve the academic library hiring process in ways that would benefit librarians who are neurodiverse, there were limitations to the study. One of the primary limitations was the sample size, which was only 109 responses for both Australian and American surveys combined. Though clear trends were identified through the survey, it should be noted that neurodiversity is not a monolith, and a single set of proscribed ideas will not represent the needs of the entire community. Future research might consider taking these recommendations and testing their popularity with neurodiverse populations.

Secondly, the study aimed to identify ableist hiring practices experienced by autistic librarians at any library situated in the field of higher education or post-secondary learning institution. We acknowledge that hiring practices vary depending on the institution type, R1 university, liberal arts college, etc., so we intentionally kept the scope of library types broad but limited to higher education/post-secondary institutions. Additionally, we wanted to avoid collecting information that could potentially identify institutions and survey participants.

A further limitation was the demographic differences between the Australian and United States respondents. The Australian participants were overall younger and more likely to be self-diagnosed, while participants from the United States showed greater gender and ethnic diversity. This could be related to overall academic library or adult autistic demographics in both countries, but further investigation would be needed to determine the reasons for those differences. The small sample meant that any examination of the results in relation to demographics would not be sufficiently valid, so we did not undertake this analysis. Somewhat related to a small sample size, the survey respondents overall were not overly diverse in racial identity.

Cooper and Kennady (2021) have identified that autistic people from ethnic minorities experience additional barriers in the workplace and recruitment. Though this may be explained with the overwhelming whiteness in the library profession (Kendrick, 2023, April 13), future research should seek to more purposefully examine the experiences of neurodiverse librarians of color.

Finally, this study only examined the experiences of librarians. There are a wide range of staff in academic libraries, and it is possible that autistic staff who are not librarians have different experiences of recruitment. This provides an opportunity to conduct further research of all academic library staff to determine commonalities and differences in the recruitment experiences.

Recommendations

There are many ways the recruitment process could be modified to make it more inclusive for all.

- *Universal design*: Libraries looking to improve their hiring practices for neurodiverse populations should focus on implementing universal design principles in the hiring process. Throughout the survey, respondents in both countries indicated the popularity of items like pre-sending interview questions or breaks during a packed interview day schedule. If accommodations are offered to all candidates, it will reduce the conflict between requesting accommodations and 'outing' oneself as autistic and potentially being discriminated against. These items not only benefit individuals with autism but can help every candidate be the best version of themselves during the interview.
- *Educate for understanding*: The importance of educating hiring committees can reduce implicit bias and increase understanding and acceptance of autistic people (Finn et al., 2023). Less reliance on candidates' "fit" and ability to socialize increases equity. Using a practical task-based approach can also increase the equity in interviews, as this assesses applicants on their skills and knowledge (Martin et al., 2018).
- *Clarity and consistency*: Using a standard set of interview questions and providing them in advance is one simple way to achieve a more inclusive recruitment process for all applicants. Providing structure and clarity is another way to enhance inclusivity and can be as simple as giving candidates information about the schedule, interview panel and campus map (Davies et al., 2023).

One of our most poignant responses eloquently sums up these recommendations and attitudes:

> Offering universally-accessible, flexible preferences for recruitment process without 'outing' oneself. If it is phrased as a preference for all people rather than as an accommodation for Autistic (or any special needs situations) then all people can participate to the best of their abilities without the fear of bias coming into play.

Improving recruitment for everyone can also help lower some of the stigma or pressure surrounding disclosure to receive necessary accommodations among a population that is clearly not at the point of being comfortable disclosing their condition. If academic libraries want to help make the interview process more inclusive for individuals with autism, they should implement steps that help both neurodivergent and neurotypical candidates alike through universal design.

Data Availability

The dataset generated from this research is not available for sharing to maintain the privacy and anonymity of participants.

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Appendix A: Survey Questions

1. Do you identify as autistic?
   - □ Yes, and I am professionally diagnosed (1)
   - □ Yes, and I am self-diagnosed (2)
   - □ No (3)
   - □ Click to write Choice 4 (4)

2. Have you ever interviewed at an academic library in the USA or Australia? (For the purposes of this study, "[a]cademic libraries encompass research libraries, baccalaureate, masters and doctoral degree granting institutions, junior and community colleges, vocational and technical schools, and distance learning programs of higher education." (ALA Definition))
   - □ Yes (1)
   - □ No (2)

3. Do you have a Library Master's degree? (this could be MLS, MLIS, MIS, etc.)
   - □ Yes (1)
   - □ No (2)
   - □ I am currently in a Library Master degree program (3)

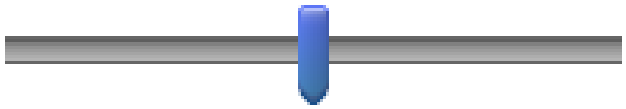
4. Employment
   - □ I am currently employed in an academic library (1)
   - □ I am currently employed in another type of library (2)
   - □ I am employed in a related field (e.g., publishing, education) (3)
   - □ I am employed in a field not related to libraries/librarianship (4)
   - □ I am not currently employed (5)

5. How long have you worked in the library field?
   - □ less than 2 years (1)
   - □ 2-5 years (2)
   - □ 6-10 years (3)
   - □ 11 years or more (4)

6. About how many job applications have you submitted to academic libraries?

0 10 20 30 40 50 60 70 80 90 100

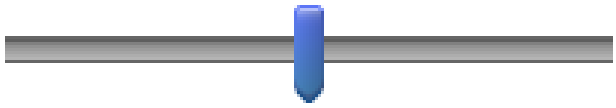
Click to write Choice 1 ()



7. About how many final round interviews have you gone through at an academic library?

0 10 20 30 40 50 60 70 80 90 100

Click to write Choice 1 ()



8. Do you consider how you will fit in or be accepted as an autistic person when viewing job advertisements or postings?
   - □ Yes (1)
   - □ No (2)

9. What information do you look for or wish was included in **job advertisements** or **postings** to identify whether you believe you would be accepted as an autistic person?

- □ Diversity statement (1)
- □ Inclusive language (2)
- □ Equal employment opportunity statement (3)
- □ Mentions modifications or assistance available for those with disabilities (4)
- □ Flexible work hours/times offered (5)
- □ Remote work possible (6)
- □ Workspace description (7)
- □ Plain, clear language (8)
- □ Requirements, duties and responsibilities of the role (9)
- □ Something else (10) _____
- □ I don't look for this (11)

10. What information do you look for about the **library or institution** to identify whether you believe you would be accepted as an autistic person?

- □ Diversity statement or plan (1)
- □ Diversity related programming (2)
- □ Information related to autism on the institution/library website (3)
- □ Information about specific people working at the institution (4)
- □ Current research on autism by scholars at the institution (5)
- □ Partner organizations mentioned by the institution's researchers studying autism (6)
- □ Support/services available to neurodivergent students/faculty (7)
- □ Something else (8) _____
- □ I don't look for this (9)

11. Which of the following activities were included as part of the job interview process?

- □ Resume and cover letter submission (1)
- □ Written responses to questions or prompts (2)
- □ Phone and/or Zoom interview (3)
- □ In person interview (less than a full work-day long) (4)
- □ In person interview (a day or more long) (5)
- □ Giving a presentation (6)
- □ Social events e.g. a lunch with the faculty (7)
- □ Something else (8) _____

12. Rank the recruitment activities below from least to most challenging (Rank 1 as least challenging).

_____ Resume and cover letter submission (1)
_____ Written responses to questions or prompts (2)
_____ Phone and/or Zoom interview (3)
_____ In person interview (less than a full work day long) (4)
_____ In person interview (a day or more long) (5)
_____ Giving a presentation (6)
_____ Social events (e.g., a lunch with the faculty) (7)
_____ Something else (8)

13. What information were you given in advance of an interview, and what do you wish you were given to prepare?

	Given (1)	Not given (2)	Would like to have (3)	Not applicable (4)
General institutional information (1)				
General library information (2)				
A schedule (3)				
Interview questions (4)				
Promotion and Tenure process documentation (5)				
Information about accommodation requests (6)				

14. Have you ever requested accommodations for autism during the hiring process?
- □ Yes (1)
- □ No (2)

15. What were they?
- □ Asking for questions in advance (1)
- □ Asking for schedule in advance (2)
- □ Taking short breaks (3)
- □ Having the interview online or by telephone (4)
- □ Other (5) _____

16. Have you ever disclosed an autism diagnosis during the hiring process?
- □ Yes (1)
- □ No (2)

17. Have you every provided or created your own accommodations during the hiring process (e.g., bringing your own familiar supplies, requesting a break in order to have sensory relief)?
- □ Yes (4)
- □ No (5)

18. What were those accommodations?
- □ Bringing your own supplies (4)
- □ Requesting a break (5)
- □ Something else (6) _____

19. In your opinion as an autistic person, how could the recruitment process be altered to be more inclusive?

20. What do you wish people knew about recruiting autistic people?

21. Age
- □ 18-24 (1)
- □ 25-34 (2)
- □ 35-44 (3)
- □ 45-54 (4)
- □ 55-64 (5)
- □ 65 and over (6)

22. Please describe your gender identity:

23. Please describe your ethnicity:

Reframing Organizational Practices through a Justice Lens: A Study on the Experiences of Racialized Librarians in Academic Libraries

Silvia Si Wing Vong, Elaina Norlin, and Allan Cho

Organizational practices contribute to the workplace culture which can impact the experiences of racialized and Indigenous academic librarians. This study examines organizational practices (e.g., salary, workload, performance reviews, professional development funds) where perceptions of unfairness and inequity may emerge in Canadian and American academic libraries. In addition, the study examines how human resources or management practices may support equity or reinforce inequitable policies and procedures. The survey included closed and open questions. The open responses were coded and analyzed to identify themes related to organizational justice (i.e., distributive, procedural, interactional, and informational). By identifying problematic practices, we can find ways to counter and redress issues in organizational policies and practices to ensure the retention of racialized and Indigenous librarians.

Introduction

Organizational policies and practices may create sites of unfairness or inequity depending on the institution and management. As academic libraries take on equity language, it is important to implement it and ensure that fairness and equity become embedded in organizational practices in outcomes, procedures, treatment, and information sharing. This study examines organizational practices in academic libraries through the organizational justice lens. Recent literature has identified practices in academic libraries that impact racialized[†] and Indigenous librarians, such as:

- Salary (Li, 2021; Galbraith et al., 2018)
- Workload (Doan, 2022; Anantachai & Chesley, 2018)
- Performance Reviews (Oates, 2023; Caragher & Bryant, 2023)

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† Many scholars and participants have their preferences for identification and as such, to respect the diverse views and move away from imposing labels on individuals, the terms BIPOC (Black, Indigenous, People of Color), visible minority, racialized and/or librarians of color are used throughout the article. It is important to note that these terms are not inclusive of all groups. For example, the term visible minority excludes Indigenous and First Nations peoples. Moreover, the issues around these terms have been long debated by scholars in various fields.

- Professional Development (Oates, 2023; Leftwich et al., 2022; Lopez, 2022; Shearer & Chiewphasa, 2022)
- Human Resources (Kendrick & Damasco, 2019)
- Management (Guss et al., 2023; Kendrick & Damasco, 2019; Riley-Reid, 2017; Alabi, 2015; Kumaran, 2015; Walker, 2015

It is important to examine how librarians perceive fairness and equity in organizations as it can impact the retention of racialized and Indigenous librarians. Hoang et al. (2022) examined the importance of equity in practice for retaining public workers and found that "[i]nclusive leadership practices increase the perception of organizational justice among women and BIPOC, making them feel valued as members of the organization and not mere 'tokens'" (p. 537). Recently, Caragher and Bryant (2023) published a study exploring perceptions of hiring, retaining, and promoting by Black and non-Black library workers. They observe that "[p]articipants experienced hostile work environments as high turnover of BIPOC employees, being targeted at work, being denied promotions, and interacting with coworkers who deny the reality of racism" (2023, p. 155). The study focuses on understanding the experiences of racialized and Indigenous librarians through the organizational justice lens where perceptions of fairness and equity are important. The study centers the participants as experts in their own experiences and environment. Thus, a racialized or Indigenous participant sharing their perception of an organizational process that was unfair and inequitable holds weight rather than comparing their experience with different groups to verify the unfairness and inequity. The reason is that organizational justice focuses on the perception of fairness and equity as it is linked to employee retention and job satisfaction.

Fairness, Equity, and Justice

The article uses the terms fairness, equity, and justice throughout. The term justice is too broad and requires specificity (e.g., social justice, legal justice). Any use of the term "justice" in the article refers to the term organizational justice. The term, "fairness" is "a global perception of appropriateness—a perception that tends to lie theoretically downstream of justice" (Colquitt & Zipay, 2015, p. 76). "Fairness" and "equity" are often utilized together in organizational justice research, not interchangeably. Moreover, equity involves relational comparisons and may involve *actual equity* or *perceived equity* (Polk, 2022). For example, a librarian who has a liaison subject area with a high student full-time equivalent (FTE) may perceive unfairness in workload if there is another librarian who has only one liaison subject area with a low student FTE. A manager may assign a few more subject areas to the librarian with the subject area with low student FTE to balance the workload. Alternatively, the manager may also assign more committee work to the librarian with the lower FTE subject area to make the workload equitable; this is actual equity. Perceived equity is a librarian's perception of equity; the librarian with the higher student FTE subject area may perceive equity if the workload distribution based on FTE is fair.

Organizational Justice

There is no shortage of literature on the impact of workplace culture in retaining faculty, and staff in higher education. More recent literature continues to reiterate the need to transform and change workplace cultures that exclude or create inequitable working environments (Brewster et al., 2022; Sood et al., 2021; Alsulami & Sherwood, 2020; Vassie et al., 2020; Pifer et al., 2019; Griffith & Dasgupta, 2018). Racialized and Indigenous librarians face more challenges in pre-

dominantly white institutions, from navigating spaces to experiencing microaggressions, to name a few (Jennings & Kinzer, 2022). Organizational justice allows institutions to examine how employees experience equity/inequity through outcomes, procedures, interactions, and information/decision-sharing with human resources and management. Organizational justice draws from equity theory from the organizational studies lens. Adams (1963, 1976) is often credited with the forming of equity theory in the social psychology field. Equity theory from the management and organizational studies field drew on equity theory to study the positive impact of employee perceptions of equity (Pritchard, 1969; Leventhal, 1980) as well as the impact of equitable treatment (Carrell & Dittrich, 1978). Over time, the organizational studies literature formed new concepts rooted in equity theory to explore equity in the workplace, such as gender equity. Greenberg (1987, 1990) identified the need to examine organizational justice to understand ways in which organizations either create equitable work environments, or reinforce inequity in outcomes, procedures, interactions, or information/decision-sharing. Greenberg (1990) draws on research in education, justice systems, and government workplaces to identify four forms of organizational justice (i.e., distributive, procedural, interactional, informational) that contribute to job satisfaction, engagement, and retention of employees. However, interactional justice has expanded to differentiate between interpersonal justice (Wiseman & Stillwell, 2022), which involves the treatment of employees and informational justice, as well as the sharing of information and/or decision-making processes (see Table 1). This study uses the term, interpersonal justice. However, past literature uses the term interactional, thus there may be a reference to this past term.

TABLE 1
Definitions and Examples of the Four Forms of Organizational Justice

Organizational Justice	Definition	Example
Distributive Justice	Fairness in outcomes	My salary is on par with industry standards and is comparable to my peers with similar education and experience.
Procedural Justice	Fairness of procedures	The institutional process for requesting a raise is clearly outlined in employee handbook and followed by management.
Interpersonal Justice	Fairness in treatment	My manager listened to me when discussing my request for a pay raise and encouraged me to apply for it.
Informational Justice	Inclusion in information sharing and/or shared decision-making	When I applied for the job, the job posting had a salary range for the different librarian levels for the position.

Source: (Wiseman & Stillwell, 2022; Colquitt et al., 2005; Greenberg, 1990)

The purpose of the study is twofold: to identify where sites of unfairness and inequity may emerge in an academic library for racialized and Indigenous librarians, and to identify how fairness and equity are experienced by racialized and Indigenous librarians. From the organizational justice lens, the experience of the employees is centered and given weight when examining the different forms of organizational justice. By understanding what forms of organizational justice or injustices emerge in the areas of salary, workload, performance

reviews, and professional development, managers can reflect on their own organization's practices to ensure fairness and equity. In addition, human resources and management are key groups that reinforce or reproduce practices.

Though unfairness and inequity may exist in different ways for non-racialized librarians in an organization, it is important to give space and attention to the experiences of racialized and Indigenous librarians to move away from race-neutral approaches that diminish, or render, racialized or Indigenous experiences invisible. One of the major criticisms of organizational studies and critical management literature is that often the literature takes a race neutrality approach. Ray writes that "mainstream organizational theory typically sees organizational formation, hierarchies, and processes as race-neutral and operationalizes race as a personal identity" (2019, p. 26).

Literature Review

Some literature discussing the retention of racialized and Indigenous librarians identified institutional processes and barriers related to navigation, as well as information on those processes emerged in the literature. Programming and institutional processes were dominant in the literature. Management-related issues, such as workplace culture related to job satisfaction, emerged in some studies. A few studies included human resources (HR) and identified HR as a significant influence in creating a negative or positive workplace culture.

Organizational Justice in Higher Education Literature

Most of the organizational justice in higher education literature comes from higher education leadership or administration journals. Some studies in the higher education literature (Guh et al., 2013; Donglong et al., 2020) cite Niehoff and Moorman's (1993) study's instrument with multiple items related to distributive, procedural, and interactional justice in the context of a movie theatre. The study hypothesized the importance that managerial monitoring plays in the role of organizational justice. They found that informal discussions through conversations between the manager and staff about their work had a positive impact on interactional justice; however, procedural justice had a huge impact in a rule-governed organization. Guh et al. (2013) used Niehoff and Moorman's (1993) questionnaire instrument to conduct a study on organizational justice—in connection with organizational citizenship—with faculty from private and public Taiwan universities. They found that institutions that ensured distributive, procedural, and interactional justice resulted in an affective commitment to the organization and institutional trust. Donglong et al. (2020) used a questionnaire to survey faculty on their experiences with distributive, procedural, and interactional justice; the study drew connections between organizational justice and the organizational commitment of faculty members. They found that faculty "performed more extra-role behaviours when they felt that there was more fairness in organizational decision-making procedures (procedural justice) and in relationships with other people (interactional justice), but distributive justice did not have an effect on their extra-role behaviors" (p. 177).

Other studies focus on select forms of organizational justice, typically distributive and procedural. For example, Gravett and Anderson (2020) surveyed faculty with closed and open questions and conducted a document analysis to examine how procedural justice impacts faculty in dispute resolution. The study found that the faculty's lack of knowledge and lack of engagement due to the institution's lack of information sharing on institutional procedures

led to procedural injustices and faculty who "suffer in silence." O'Connell et al. (2021) took a mixed methods approach, utilizing both a survey and interviews to examine faculty members' experiences with distributive and procedural justice related to performance metrics. They found that "[m]ethods of performance monitoring and performance consequences associated with teaching metrics tended to be located at management level with respondents generally providing lower evaluations of both procedural and distributive justice" (p. 558). Finally, Bloch et al. (2022) drew on O'Connell et al.'s (2021) study to examine how faculty perceived distributive and procedural justice with research and teaching performance evaluation in English and German universities. The study focused on the use of metrics and collecting data via survey. They found that "[p]erceptions of procedural justice were based on the extent that respondents perceived the procedures by which metrics were applied were clearly communicated and context-sensitive" (p. 774).

Though the focus on specific justices and institutional practice helps provide more detail in certain areas, it is important to consider interactional and informational forms of justice, as they may relate and connect to the outcomes (distributive) and institutional processes (procedural). Judge and Colquitt (2004) conducted a Likert scale study with items related to distributive, procedural, interactional, and informational justice. They found connections between specific organizational justice, writing that "procedural and interactional justice were the primary drivers of justice effects, as only they had unique effects on stress perceptions. The strong effects for procedural justice are consistent with theories that link the variable with uncertainty and control" (p. 401). The study helped provide linkages between the different forms of organizational justice and faculty experiences with stress.

Some studies examined organizational justice as a general concept rather than identifying specific forms. Güven and Güven (2020) conducted semi-structured interviews with lecturers who identified as female to understand their perception of organizational justice. Their results found that the lecturers perceived justice as looking different for different groups, and that they saw value in organizational justice. It is important to note that the study did not identify specific forms of organizational justice and were focused on the general concept of organizational justice. Khan et al. (2021) examine organizational justice related to leadership styles using a survey instrument with faculty. They found that organizational justice mediated leadership styles and employee performance. Nyunt et al. (2022) found, in interviews with faculty regarding tenure and organizational justice, that inconsistencies and lack of clarity in tenure criteria and managerial behaviors also contributed to inequity and unfair conditions, such as favoritism for other faculty. Different forms of justice helped to identify specific areas of issues and organizational injustices.

Overall, there has been a lack of consistency in how researchers have explored the topic of organizational justice. The higher education literature suggests that universities are a unique environment due to the dichotomy of autonomy and governance. Academic librarians situated in this environment also experience this duality; however, it is important to note that academic librarians do not always experience the same structures as faculty. For example, faculty may—in their collective agreements via the faculty association/union and contracts—have percentages for research, teaching, and service. Academic librarians may have no percentages or different percentages, depending on their role. Thus, it is worth exploring how academic librarians navigate institutional practices and identifying where issues with different forms of organizational justice may emerge in an academic library.

Organizational Justice in LIS Literature

The literature on organizational justice, both for academic and public libraries, is limited. Studies on the topic use closed-ended questions and conduct a quantitative analysis to draw connections between library employee satisfaction or turnover intention to organizational justice. Though, many of the questions focus on the perception of fairness in outcomes, procedures, interactional or interactional and informational. Shan et al. (2015) used Greenberg's (1990) three forms of organizational justice—distributive, procedural, and interactional—to examine employee job performance in academic libraries in Pakistan. They found that interactional justice concerning manager relations had a significant impact on employee performance, and emphasized the importance placed on respect and truthfulness. The study used closed questions, which meant that respondents could not elaborate on their own experiences and emphasized managerial relations. Jahangiri et al. (2020) connected the quality of work life with organizational justice, studying employees in public libraries in Iran, and modeling their questionnaires on previous studies from the 1970s and 1990s. They identified, through a Likert scale, that distributive justice (i.e., the perception of fairness in outcomes) had a strong impact on the librarians' perception of the quality of their work life. Matteson et al. (2021) used recently expanded forms of organizational justice, interpersonal and informational justice and a Likert scale related to each form of justice. Most of the participants in their study were in public service roles. Using a deductive reasoning approach, the results of their study confirmed that measures of perceptions of organizational justice include organizational support, job autonomy, and job feedback. Deborah and Eunice (2022) studied organizational justice and the turnover intentions of academic librarians in Southwest Nigeria. They used a structured questionnaire with a Likert scale and drew on more recent forms of organizational justice to expand interactional justice to interpersonal justice and informational justice. They found that all forms of organizational justice impacted librarians' intentions to leave the organization.

Quantitative data can both provide a large-picture view of issues and measure the significance of each form of justice; however, without qualitative responses, it is difficult to identify specific areas in practices that impact academic librarians. Open responses allow participants to expand and further explain their responses. For example, when examining procedural justice, allowing open responses to explain what part of the procedures in an organization are unfair allows for specific redress. More importantly, to properly engage with the concept of justice, the voices of those experiencing unfairness and inequity must be allowed to express and share their experiences, not only those experiencing fairness and equity. Scheyett (2021) writes, "For justice to occur, all voices must be heard. For justice to occur, all voices must be free to speak their truth. For justice to occur, we must attend to all voices" (p. 5). Thus, this study included open questions to allow for space for participants to provide context and share their experiences. Moreover, the study aims to contribute specifics about what practices were perceived to be equitable or inequitable.

Methodology

Data Collection

This study's 20-question survey included both closed responses (i.e., yes, no, unsure) and open responses (i.e., space given for description or explanation). The open questions prompted respondents to describe their experiences on with various organizational policies or procedures. While 154 people accessed the survey, only 111 responses were usable and fully completed.

The initial intention was to conduct follow-up interviews with survey respondents who volunteered to participate. However, an analysis of the interview data revealed a theme related to cultural or identity taxation and the experience of racialized labor (Joseph & Hirshfield, 2023; Padilla, 1994). This topic deserved additional attention; therefore, the interview data was removed and analyzed separately under different themes. Survey questions asked respondents for demographic data regarding career status (e.g., early, middle to late), race and ethnicity, as well as any other intersecting identities they felt impacted their experiences as a professional librarian. In addition, the survey included questions regarding the areas of management, human resources, salary negotiation, workload assignment, performance reviews, and professional development.

Identity-related questions typically have closed responses; however, we felt it was important for participants to be able to self-identify. Covarubbias et al. (2018), using a Critical Race Theory lens, emphasize that "[d]ominant analyses of quantitative data can lose sight of the fact that numbers are simply symbols representing reality. These abstractions, and their subsequent manipulation, can be restrictive for other types of contextualization and meaning-making of those numbers" (p. 143). Thus, we left identity questions open. Our approach may not be in line with dominant quantitative approaches and may be seen as more challenging to analyze, due to varying answers regarding race and/or ethnicity; however, the purpose of the study was to examine inequitable organizational practices as identified by racialized librarians. If a group/groups with intersecting identities emerged, that finding would help understand the layered experiences of the participant.

Participants

Racialized or BIPOC librarians continue to be under-represented in libraries. Hulbert and Kendrick (2023) working with multiple datasets share in an S+R Ithaka report that "the data do confirm that the vast majority of librarians are white and that the racial and ethnic makeup in the field has changed little over the past decade … and in the case of Black librarians, there has been a steady decline since 2018" (p. 7). According to the report, in 2022, 81.31% of employed librarians identified as white, while 6.76% identified as Black, 0.46% identified as American Indian, Alaska Native, 3.16% identified as Asian, 6.95% identified as Hispanic, and 1.35% identified as multi-racial. The report noted that data is not completely up to date and includes librarians from different types of libraries; the data drew on ALA member data as well.

In Canada, the data on visible minority and Indigenous librarians is limited and out of date. A 2018 census of Canadian Academic Librarians by the Canadian Association of Professional Academic Librarians showed that close to 90% of respondents identified as white only (Revitt et al., 2019), despite the increase of visible minority people in Canada since the 1980s and the projected increase into 2036 (Williams et al., 2022). Kumaran and Cai (2015) likewise conducted a national survey of visible minorities and noted the lack of representation in the Canadian library profession. The term visible minorities excludes Indigenous peoples and continues to be used in Canadian government documents and census. In addition, some provincial human rights commission acknowledges the terminology to be out of date (Ontario Human Rights Commission, 2017).

Due to the lack of representation of racialized and Indigenous librarians in the U.S. and Canada, we expected that the number of participants from the intended population for our study would be small compared to those studies which include librarians who identify as

white. To increase the pool of participants which, in turn, helps maintain participant privacy and confidentiality, we surveyed both U.S. and Canadian libraries. In addition, it was important to gather as much data as possible to better understand how fairness and equity play out in academia, given the research on inequity and racialized and Indigenous academic librarians (Carragher & Bryant, 2023; Brook et al., 2015; Damasco & Hodges, 2012).

Ethics and Consent

The research study received research ethics approval at the University of Toronto (REB Protocol #29124) and the University of British Columbia (BREB# H21-02220). Once protocols were issued, we recruited participants through listservs in Canada and the U.S., including Visible Minority Librarians of Canada (ViMLoC), Asian Pacific American Librarians Association (APALA), and American Library Association (ALA) Connect. Due to research ethics requirements and information privacy concerns with U.S.-based platforms, we stored data on a Canadian-owned and located platform, Simple Survey. Data remained in Canada for both the survey data and interview data as per research ethics protocols at the University of Toronto and the University of British Columbia. Privacy and confidentiality were important and as such, consent was obtained before the survey. We anonymized any identifiable information such as race, ethnicity, location, position titles, and any identifying descriptions in the open responses.

Data Analysis

The study had three coders (the authors). To ensure inter-coder reliability, we met several times throughout the analysis to review and discuss the survey data and open responses. We examined the closed responses first to identify challenging institutional processes. Next, we coded the open answers to further understand the context. We coded the open responses separately and then reviewed them together to identify where there may be vagueness in responses or coding discrepancies and then came to an agreement on the code for those responses. By coding separately, we were engaging in self-coding (Glazier et al., 2021) by first comparing our own selected codes identifying where our own biases may emerge and addressing this in discussions as a team. Once we coded the open answers, we grouped them into themes related to the four forms of organizational justice (i.e., distributive, procedural, interactional, and informational). We used a codebook approach, that is, a thematic analysis technique that is flexible in the coding but can include priori themes, which may be refined or further developed after some initial coding (Braun & Clarke, 2022). For example, some initial themes that emerged after a few rounds of coding were information/knowledge, power, and opportunity hoarding; however, after another round of coding, we noted themes regarding fairness and equity in outcomes, procedures, interactions, and information-sharing. Upon reflection on the impact and purpose of the study, the themes evolved into the different forms of organizational justice (i.e., distributive, procedural, interactional, and informational). Braun and Clarke (2022) write that "coding is [in this approach] primarily a process for identification of 'themes.'" (p. 245). We grouped the codes that emerged from the analysis into relevant themes according to the definitions of the different forms of organizational justice and generated thematic tables to review the codes (see Tables 2, 3, 4, and 5). Due to the brevity of open responses, there was typically only one code per response. We counted the codes and expressed the results as percentages out of 111 responses.

In addition, we examined demographic data as a variable to identify any patterns related to a particular group. Most of the participants identified as African American or Black, East Asian American, or Latinx. When we looked at intersectional identities, there was great variation, and no specific groups were experiencing consistent issues in the dataset. Few respondents shared how their other identities impacted their experiences with the various organizational processes and practices. In addition, we examined career stage (e.g., early, mid, and late) as a variable to see if years of experience impacted how racialized and Indigenous librarians navigated the various organizational policies and practices. Again, there was no emergent theme from the data that indicated any differences between career stages. Using the responses from the closed question (i.e., yes, no, unsure) as a variable, we examined the reasoning for responses related to fairness and equity in the workplace.

TABLE 2
Codes Promoted to the Theme Distributive Justice for Open Responses

Organizational Practice	Theme 1: Distributive In/Justice
Salary	• Salary expectation/request was/was not met in negotiations
Workload	• Understaffing in department/or library • Nature of the role (heavy/light workload)
Performance Reviews	• Work was valued/not valued (merit) • DEIA work was valued/not valued
Professional Development	• Lack of transparency/favoritism by the manager • Requests have always been denied/supported by the manager • Contract/Policy/Faculty Association/Union have a set amount for each librarian • Fair but not enough funds at the institution
Human Resources	N/A
Management	• Performativity related to DEIA commitment • Engaged with DEIA work • Advocates DEIA work for librarians

TABLE 3
Codes Promoted to the Theme Procedural Justice for Open Responses

Organizational Practice	Theme 2: Procedural In/Justice
Salary	• Formula-determined salary as per union or institutional policy • The position was non-negotiable according to the institution
Workload	• Autonomy (able to choose projects/work) • Faculty Association/Union has clear workload policies and procedures
Performance Reviews	• No performance reviews at institution • Performance review had/did not have a clear evaluative process • The manager was not trained on the performance review process • Faculty Association/Union has clear performance review procedures
Professional Development	• Process to request funds is clear/unclear
Human Resources	• No procedures or unclear procedures for reporting incidents • Lack of awareness of procedures for reporting incidents • Reporting of incidents go through union or faculty association
Management	• Quick response/follow-up to complaints or issues • No action/Follow-up to complaints or issues

TABLE 4
Codes Promoted to the Theme Interactional Justice for Open Responses

Organizational Practice	Theme 3: Interpersonal In/Justice
Salary	• Salary negotiated/offer was/was not honored by management • Nervous, awkward or stressful experience with institution/manager • The manager lied about a position being non-negotiable
Workload	• Manager support to increase/decrease workload
Performance Reviews	• The meeting/evaluative process was stressful • Manager has/did not have soft skills to conduct performance reviews
Professional Development	• Manager encourages/discourages PD activities
Human Resources	• Discouragement of reporting incidents • Fear of retaliation from the institution • Confidentiality was violated by HR representative
Management	• Fear/Avoidance of conflict/DEIA work • Overt racism/microaggression

TABLE 5
Codes Promoted to the Informational Justice for Open Responses

Organizational Practice	Theme 4: Informational In/Justice
Salary	• No experience or did not know they could negotiate a salary
Workload	• There was/was not a discussion of workload assignments with the manager/supervisor • DEIA work was assigned with/without discussion with a manager/supervisor
Performance Reviews	• Expectations of performance were clear/unclear or fair/unfair
Professional Development	• Un/clear language on the amount of funds for professional development
Human Resources	• Human resources processes are available/not available or shared/not shared when hired
Management	N/A

Results

We analyzed a total of 111 responses and collected demographic information from participants, including information regarding ethnicity, gender identity, career stage, and location. The demographic results are as follows:

- All participants identified as Black, African American, Indigenous, Asian, or Latinx. Some participants identified as mixed or multi-racial.*
- 78% identified as female or a woman, 14% identified as male, 5% identified as non-binary, and 3% preferred not to answer.
- On average, participants had worked at four different libraries in their careers.
- 40% identified as early career (i.e., zero to six years); 30% identified as having a mid-

* To protect participants' privacy and confidentiality particularly since racialized and Indigenous librarians are a small group in the profession, we have opted not to share specific numbers or ethnicity as some have very specific racial and ethnic identities that may be easily identifiable.

career (i.e., 7-15 years); 28% identified as late career (i.e., 15+ years); and 2% shared that they left the profession but provided responses according to the stage of their career right before they left.
- More respondents were working in the United States (65%) than in Canada (35%).
- Participants identified other intersectional identities as impacting their experience in their context, including first-generation, socio-economic status, sexual orientation, religious affiliation, immigrant, disabilities, or neurodivergence. The most frequently mentioned identities were first-generation and socio-economic status.

Overall, there were no specific group/groups related to race and ethnicity, gender, or other identities among the racialized librarians that experienced the same thing in the different areas (e.g., salary, workload, performance reviews, professional development, human resources, and management). We analyzed variables such as race/ethnicity and career stage, but no specific group/groups among the racialized librarians had a singular or dominant experience. Nonetheless, it is still important to identify where experiences of fairness and equity in the organizational processes and practices may emerge for racialized librarians to give space to understanding how racialized librarians navigate and experience academic culture and structures.

Salary

Yes/No responses made up most of the responses when participants were asked if their starting salary was reflective of their skills and/or abilities as well as equitable (see Figure 1). Those who indicated they had an equitable starting salary (41%) had reasons related to distributive justice and procedural justice (see Table 6). Those who shared reasons related to distributive justice identified that the employer or manager offered a higher salary than expected or a fair salary on par with colleagues. For example, one participant shared: "I did not negotiate. The starting salary was a flat rate that all librarians at the organization currently make." Regarding procedure, those who perceived a fair salary indicated that institutional policies on starting salaries, salaries outlined by a collective agreement, and formula-based salary calculations contributed to an equitable outcome with salary. Participants who indicated that their starting salary was not reflective of their skills or abilities (44%) provided descriptions related to distributive, procedural, and interpersonal justice. For the responses related to distributive justice, participants indicated that they received a lower salary than expected after the initial offer or negotiation. One participant wrote: "I was told that I have room for growth—even though I have qualifications [multiple graduate degrees] and experience [publications and active with associations] far above the person that I was negotiating with."

For responses related to procedural justice, many participants indicated frustration with being told that there were no negotiations allowed or that it was not practiced at the institution. For responses related to interpersonal justice, participants shared that either the experience itself was stressful, or awkward, or that a manager or negotiator had lied or double-backed on a verbal agreement about what they would receive. Though not all participants shared this experience, it is important to bring this issue to light as it relates to interpersonal injustice. One participant shared: "I was told negotiating was not possible because the other librarians hired [recently] did not negotiate salaries. I just learned that new hires did negotiate their starting salaries." Integrity on the part of the manager or negotiator in this scenario is important in ensuring that librarians entering an organization trust their manager.

FIGURE 1
Starting Salary

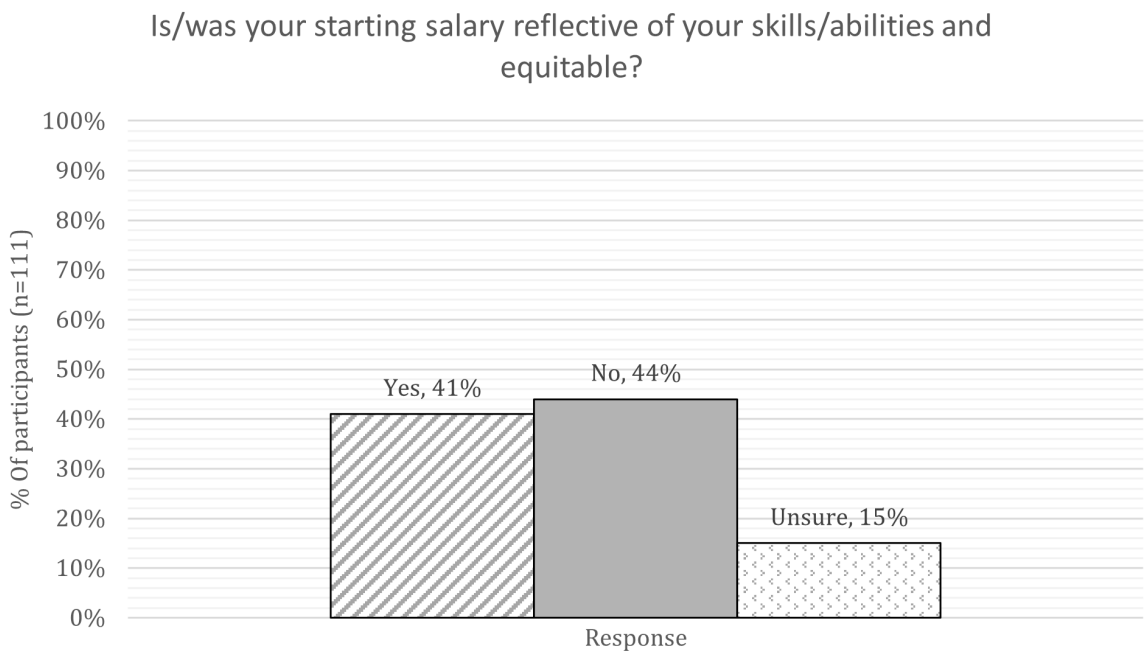

TABLE 6
Salary: Open Responses Coded and Categorized into Organizational Justice Themes

	Yes (Equitable)	No (Inequitable)	Unsure
Distributive	13%	11%	1%
Procedural	9%	11%	3%
Interactional	2%	10%	1%
Informational	1%	0%	3%
N/A	16%	12%	7%

There were no emerging dominant codes or themes with those that responded unsure (15%). Participants expressed a variety of reasons, from "no experience with negotiations" to "not negotiating due to fear of losing an offer." We categorized responses that did not go into detail, or that provided one-word answers, under N/A (35%) as there was not enough information to properly assign codes or themes to the responses.

Workload

The responses to fairness and equity in workload were either yes or no responses. No participants selected the option "unsure" for the question. Most participants (63%) indicated that their workload was fair and equitable. A significant portion of the responses fell either in distributive justice or respondents did not provide information (N/A). The coded responses that fell under distributive justice indicated that they had autonomy or a manager who was fair and equitable in distributing work. One participant shared in their response: "With my manager, I set yearly goals in these areas and there is a mid-year check-in. But I also have informal discussions with my manager when taking on projects to make sure they are not only appropriate for my work but that they are things that would serve me—basically my boss tries to make sure I don't take on too much." It is important to note that some participants

indicated that the workload was equitable, however, every librarian in the organization had heavy or unreasonable workloads due to understaffing.

The participants who indicated that their workload was not fair and inequitable (37%) provided explanations related to distributive and informational justice. For the 18% of distributive justice responses, participants indicated the nature of the role, assigned DEIA work, understaffing, and the organization's structure as reasons for an inequitable workload. For the 14% that indicated reasons related to informational justice, two reasons emerged: a lack of discussion in workload assignment with the manager, and/or a lack of communication of job expectations between the librarian and manager. One participant shared that their concerns about their workload were disregarded by their manager and had to take on DEIA work, saying: "I took on significantly more service work and diversity work than my colleagues, including invisible labor and consultations based solely on my identity." Another participant observes that job descriptions with "other duties as assigned by the Dean of Libraries" as problematic as it does not indicate that one may be relieved of other duties to take on new duties. The vagueness of that phrasing also gives way for new duties to be added on after salary negotiations are finalized.

FIGURE 2
Workload

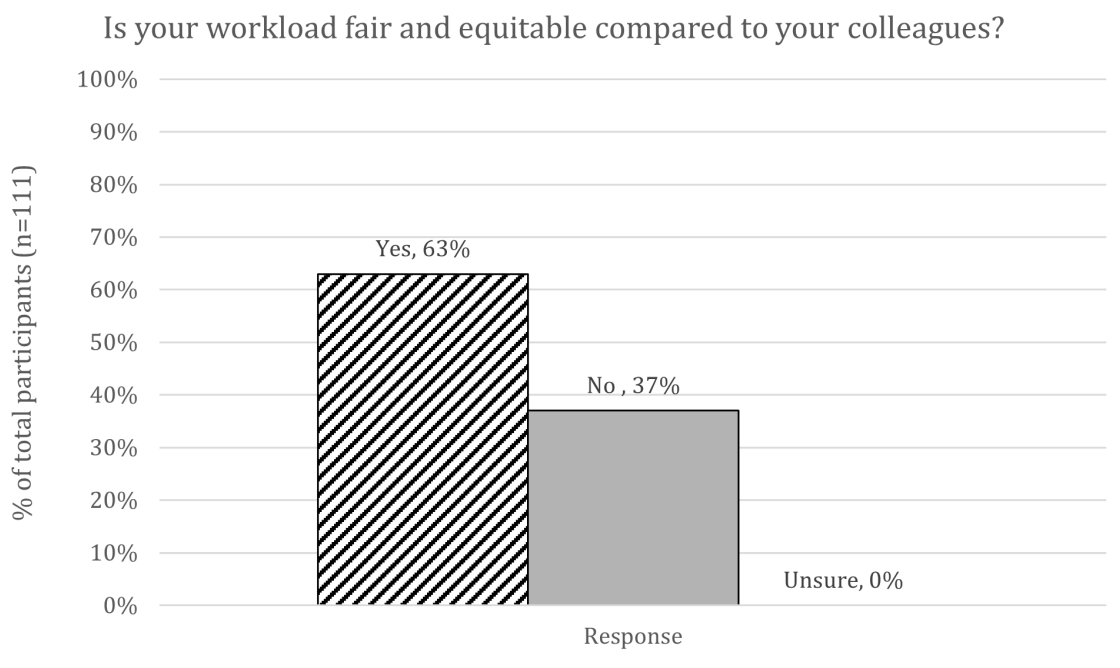

TABLE 7
Workload: Open Responses Coded and Categorized into Organizational Justice Themes

	Yes (Fair & Equitable)	No (Unfair & Inequitable)	Unsure
Distributive	32%	18%	0%
Procedural	2%	0%	0%
Interactional	0%	0%	0%
Informational	6%	14%	0%
N/A	23%	5%	0%

Performance Reviews

Regarding performance reviews, some participants (39%) indicated that it was inclusive and equitable. However, many of the open responses were one-word responses with little explanation (e.g., "it was fine/good/positive"). The responses that did provide context were mostly related to informational justice. These responses typically included the term "transparent" or referred to the clarity of the performance expectations. One participant wrote: "Positive, due to transparent and open discussions, and continuous dialogue with my manager." Participants who indicated that their performance review was not inclusive, or inequitable (22%) shared reasons related to distributive and informational justice. Those who experienced distributive injustice all indicated a lack of recognition of merit in the work they were doing as a librarian. For example, one librarian wrote: "There is zero appreciation of DEI work [at my library]. Also, my supervisor was not prepared and had no idea what I was doing." Informational injustice was connected to managerial practices where participants shared issues of transparency of performance expectations, or a lack of meetings to build towards the final performance reviews. This lack of feedback over the year led to unexpected negative feedback in annual reviews.

FIGURE 3
Performance Reviews

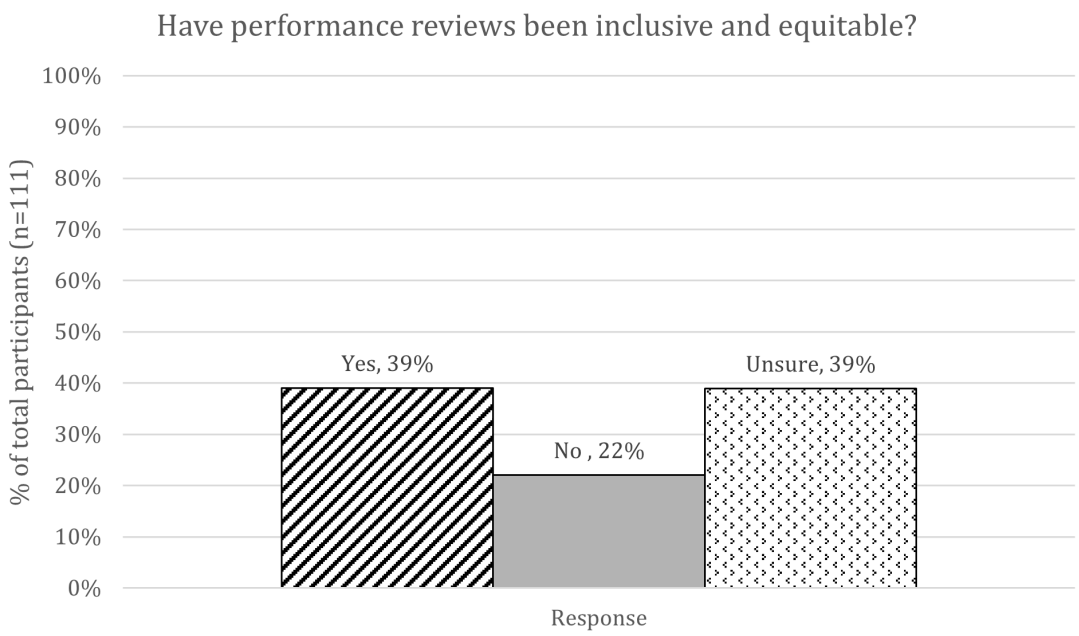

TABLE 8
Performance Reviews: Open Responses Coded and Categorized into Organizational Justice Themes

	Yes (Fair & Equitable)	No (Unfair& Inequitable)	Unsure
Distributive	0%	7%	0%
Procedural	0%	0%	0%
Interactional	4%	1%	0%
Informational	10%	10%	18%
N/A	25%	4%	21%

A good portion (39%) of the participants responded "unsure." Further examination of these responses, however, indicated that they did not know if their experience was normal or better compared to their colleagues, or that they were unsure why they were doing well or poorly. In addition, some responses indicated that they did not have performance reviews at their organization or that they had not experienced a performance review at another institution so they could not compare experiences.

Professional Development

Another interesting finding was that most participants (74%) indicated that professional development was fair and equitable in terms of financial support. The two areas of justice that emerged in the explanations were distributive and information justice. For distributive justice, participants indicated that their manager played a role in ensuring requests were supported and funded. For information justice, the major reason was transparency from management about the amount of professional development funds available to librarians, even in situations when funds were low or cut for the year. Union and contract/policy language that clearly outlines the exact funds available was another reason expressed by participants. One participant shared: "At my current institution, the PD funds are the same for everyone, with an extra fund that we can apply to if we need more money. I have never applied for extra funds before. I have not had issues in the past getting approval for time off to attend PD opportunities." For participants who experienced unfair and inequitable funding for professional development (14%), the reasons ranged among all four forms of justice from being denied professional development opportunities related to their work (distributive), lack of procedures for requesting funds (procedural), discouragement from a manager (interpersonal), to lack of clear explanations for decisions (informational). One participant wrote: "There is no clear amount provided and evasive explanations. My professional development needs are met with derision." Those who indicated "unsure" (12%) shared that they did not

FIGURE 4
Professional Development

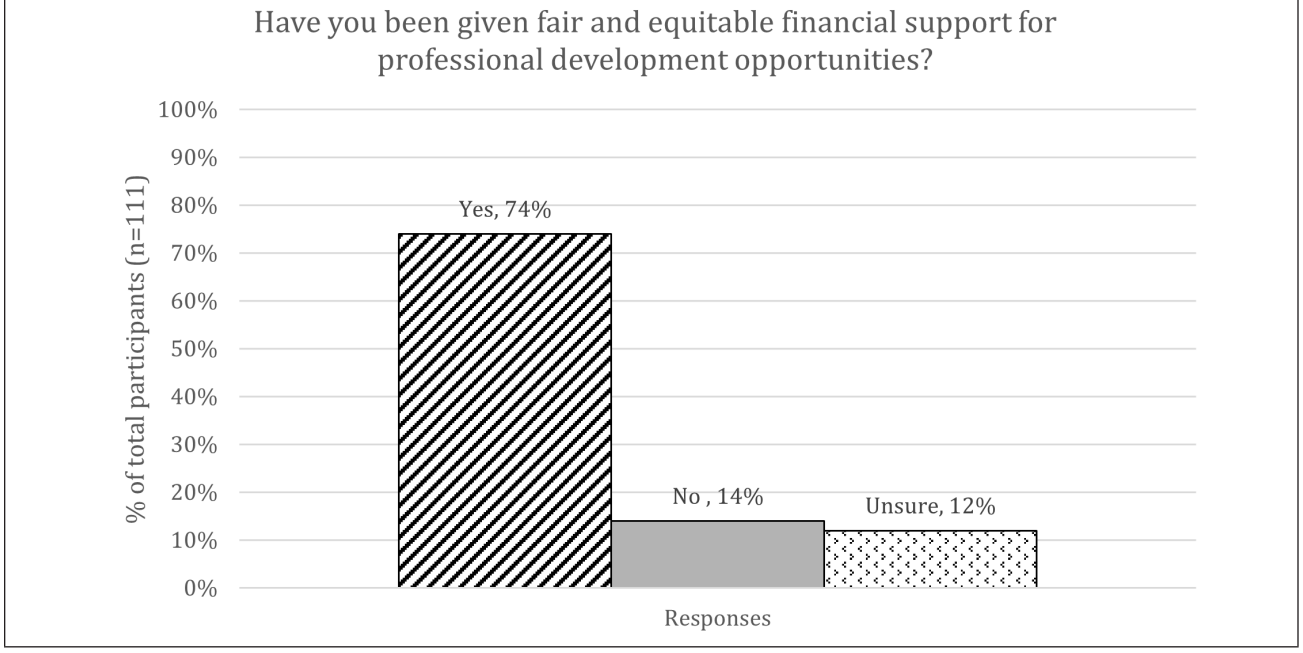

TABLE 9
Professional Development: Open Responses Coded and Categorized into Organizational Justice Themes

	Yes (Fair & Equitable)	No (Unfair & Inequitable)	Unsure
Distributive	17%	4%	3%
Procedural	0%	2%	1%
Interactional	0%	4%	3%
Informational	34%	4%	0%
N/A	23%	0%	5%

know if there was fairness and equity in the distribution of funds due to a lack of experience at other institutions.

Human Resources

Most participants who responded that human resources provided supportive procedures to create an inclusive and equitable working environment (26%) indicated reasons related to interpersonal and procedural justice. Respondents indicated that human resources were responsive and supportive to issues or complaints reported. One participant shared: "Employees are assigned an HR specialist to help them with any problems and respond to questions fairly quickly." In addition, participants indicated that procedures were clearly outlined by the institution in reporting incidents. Participants who indicated that human resources did not provide supportive procedures (50%) provided reasons related to procedural and interpersonal injustice. Those who provided explanations related to procedural injustice identified that the request for funds was vague, unclear, or lacked procedure. This made the experience confusing or discouraged reporting of incidents. One participant shared: "No HR processes in my

FIGURE 5
Human Resources

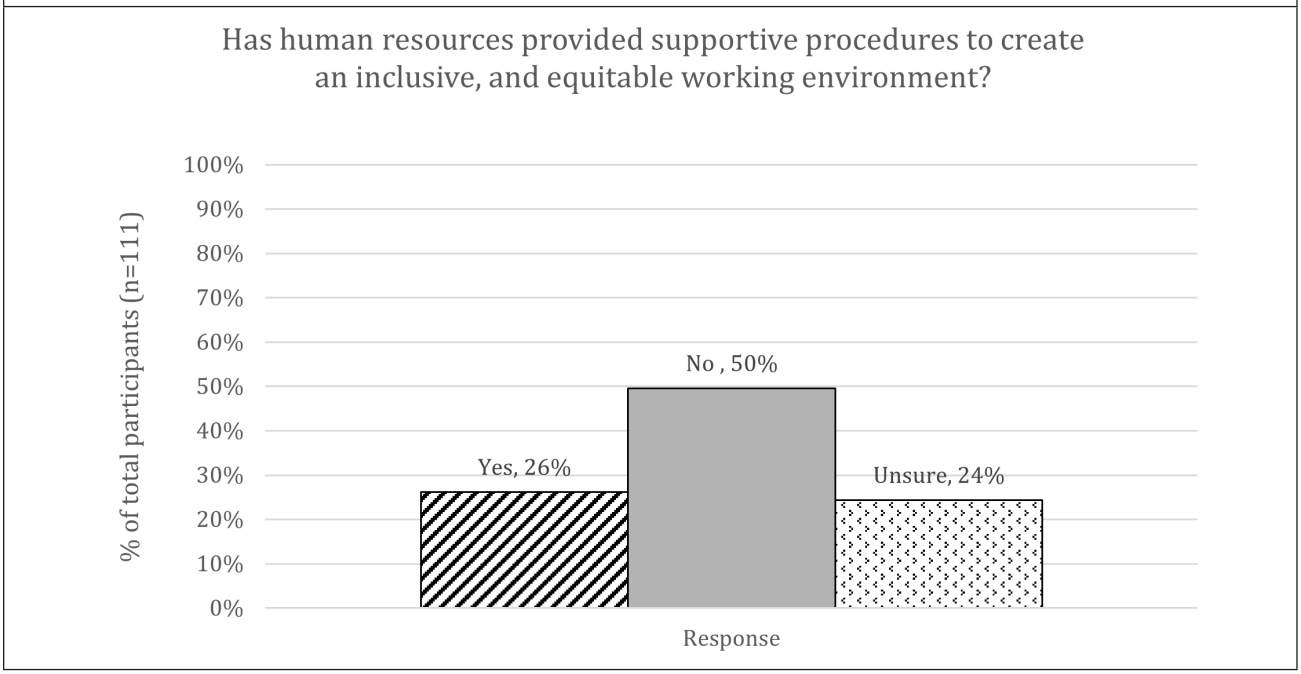

TABLE 10
Human Resources: Open Responses Coded and Categorized into Organizational Justice Themes

	Yes (Fair & Equitable)	No (Unfair & Inequitable)	Unsure
Distributive	0%	0%	0%
Procedural	10%	22%	7%
Interactional	11%	16%	5%
Informational	0%	0%	10%
N/A	5%	12%	2%

current library. There are lots of bureaucratic processes to talk to someone, and then they ask you what you want done to correct the situation." Reasons related to interpersonal injustice identified fear of retaliation from the institution, discouragement from human resources in reporting incidents, or staffing issues in the human resources department leading to delays in responding to incidents. One participant shared: "No one records issues so there is no record of repeated behavior. We are afraid of retaliation." Interestingly, participants who chose "unsure" (24%) shared that they were not aware or had experience with human resources policies or procedures. Some even indicated a lack of procedures as well as discouragement from human resources or management to pursue issues.

Management

Overall, interpersonal justice was an important form of justice for participants related to management. Participants who selected "yes" (45%) provided explanations all related to interpersonal justice. Many shared that their manager was either engaged with diversity, equity, inclusion, and accessibility (DEIA) work, advocated for resources for the work,

FIGURE 6
Management

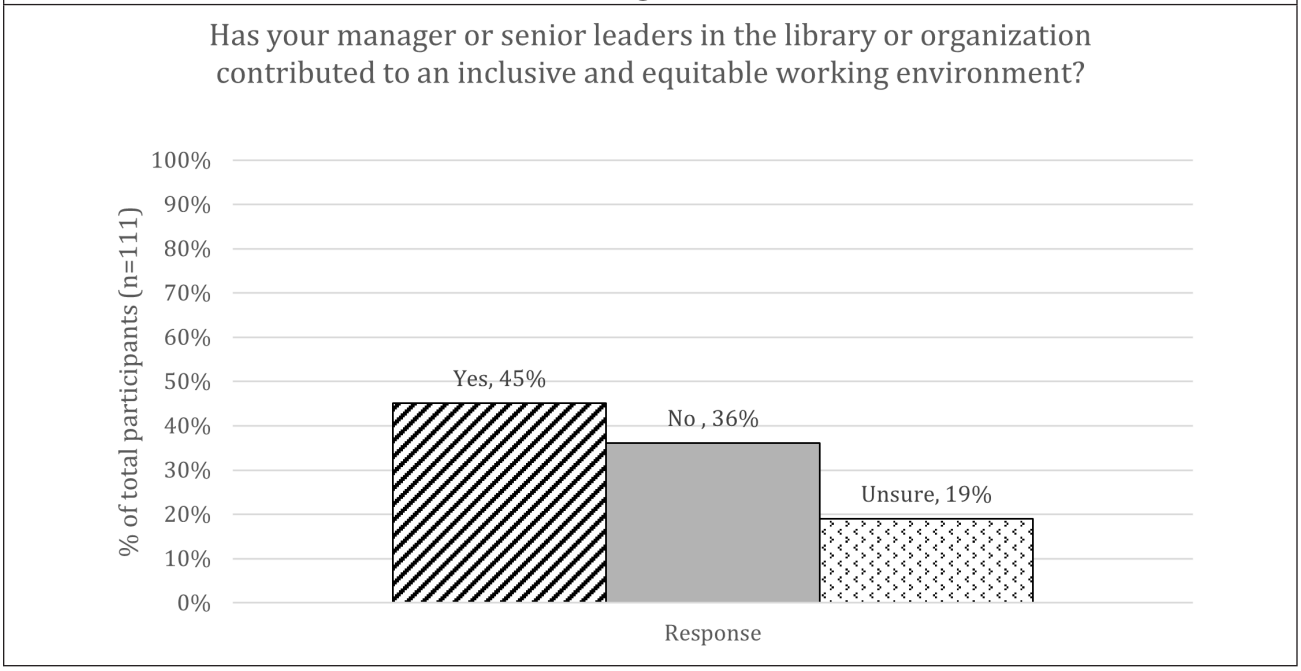

TABLE 11
Management: Open Responses Coded and Categorized into Organizational Justice Themes

	Yes (Fair & Equitable)	No (Unfair & Inequitable)	Unsure
Distributive	0%	0%	0%
Procedural	0%	0%	0%
Interactional	39%	29%	6%
Informational	0%	0%	0%
N/A	6%	7%	13%

or supported and followed up with DEIA-related concerns. One participant wrote: "My manager who identifies as a cis-gendered woman regularly discusses issues of EDI in our 1:1 and is seeking active ways to incorporate action items system-wide. They are not dependent on me to lead efforts but take efforts into their own hands." Participants who selected "no" (36%) also provided reasons all related to interpersonal justice. They shared reasons around fear and avoidance of "complicated" or DEIA issues/incidents, performative or "lip service" DEIA work, lack of support for DEIA initiatives proposed by librarians, or experiences of overt racism with their manager. One participant observes in their library: "My library director and senior administration are too afraid of addressing harassment, prejudice, homophobia, or any other exclusive and violent behavior from bad actors in the library. They ignore the problem, which results in personnel loss of good librarians." Those who chose "unsure" (19%) were also related to interpersonal justice or did not provide a reason. Some shared they have yet to see any DEIA-related work, or they shared that performativity or "lip service" was a factor in their response as they are not sure or have yet to observe changes in the institution despite the publication of statements of support.

Discussion

Organizational justice lends some useful concepts in reflecting on dominant and taken-for-granted structures as well as day-to-day practices that impact librarians. The results provide a snapshot of how particular forms of justice emerge in some areas. For example, interpersonal justice and management are closely tied and, therefore, managers need to examine how their practices may impact the experience of fairness and equitable treatment when interacting with librarians. Hoy and Tarter (2004) draw on the organizational justice literature to identify core principles of organizational justice:

- *The equity principle* is equity and equality balanced in compensation, rewards, and recognition.
- *The perception principle* emphasizes the importance of communicating procedures that ensure fairness.
- *The interpersonal principle* centers on respect, sensitivity, and dignity towards others in communication and action.
- *The consistency principle* focuses on procedural behaviors and consistency of response and action that is fair in varying situations.
- *The voice principle* is the inclusion of staff in decision-making through engaged informal and formal conversations.

- *The egalitarian principle* is another inclusive principle that emphasizes the importance of collective benefit rather than self-interest.
- *The correction principle* removes ego from practice and gives space to librarians and staff to provide feedback, prompting a reversal or correction in a decision.
- *The accuracy principle* is the action of gathering information so that decisions are based on different perspectives to ensure a fair outcome.
- *The representative principle* is the sensitivity to the various groups that would be impacted by a decision and ensuring that representation is present and involved in the decision.
- *The ethical principle* is moral and ethical standards focused on authenticity, honesty, integrity, and vulnerability.

Distributive Justice

The areas that identified the most occurrences of distributive justice were salary and workload. In the area of salary, distributive justice issues mainly lie in the practice of not meeting participants' salary expectations, or of negotiated extras not being honored by management. Salary negotiation practices typically involve discussion between management and a potential hire after an interview. Job postings do not necessarily include salary ranges and, as a result, it can be frustrating for librarians to learn after an interview that the institution's budget can only meet a lower salary range. The equity principle is important in ensuring that institutions budget for positions with salaries that can meet the expectations of a potential hire. If not, other offerings such as professional development funds, stipends, or other funds to cover office furniture should be offered to candidates. The positive experiences shared by some participants indicated that when the distribution formula of salaries was shared by management, participants were satisfied with negotiated offers because they knew what to ask for or had clear expectations. The perception principle plays a part in ensuring that during the negotiation process, so it is important to be transparent from the start of the interview process about how salary offerings work at the institution.

Workload practices that impact distributive justice include allowing understaffing issues to persist and creating a contract or new positions where the overflow of work is distributed to one position. Librarians in precarious positions or new to the profession may not voice their concerns and may also take on more work than necessary. The equity principle is important in ensuring that workloads are reviewed throughout the year with the individual librarians and that librarians are given opportunities to adjust their workloads, particularly when they are new to a position. In addition, the correction principle should be adopted by managers who should be able to push back on institutional pressures to take on more work. Managers can also pull back on projects if senior administration refuses to fund more positions to deal with understaffing. Agreeing to continue with the same workload with no staff legitimizes narratives that libraries do not need funding or are overstaffed.

Procedural Justice

The areas that were of concern in procedural justice were salary and human resources. In the area of salary, some practices were identified as good models for salary negotiations, and one practice was identified as problematic. The practice of formula-based salary, collective agreements with clear salary ranges, or salary information/policies was perceived to be fair and equitable. The perception principle ensures that salary formulas outline clear steps in how

salaries are calculated and gives some librarians a starting point. Where participants identified salary as a problem was in being denied negotiations and given a salary offer. In addition, a few participants identified how they found out others were able to negotiate when they were denied negotiations. Perception, as well as consistency as a principle, are important in making procedures clear before and during salary negotiations, and ensure that procedures, such as salary negotiations, are offered to all librarians rather than a select few.

Human resources is another area of concern when it comes to procedural justice. Most participants who identified an issue with HR indicated that the vagueness or lack of procedure in reporting incidents or addressing a problem resulted in unfair or inequitable situations at work. Perception and consistency principles are important in ensuring that procedures are clear and consistent. Adopting correction and ethical principles is also important in ensuring that any missteps in handling incident reporting are corrected by management or HR. Moreover, maintaining an ethical principle means that HR and management take on the responsibility of ensuring that procedures are improved upon to ensure that librarians are supported and in a safe working environment.

Interpersonal Justice

Human resources and management were areas where interpersonal justice was important in ensuring equity in the workplace. For human resources, the fear of reprisal and lack of trust were a common concern. Human resources have reporting lines to senior administration, which can make reporting incidents such as ones related to managers difficult. In addition, some participants noted that human resources had high turnover or were understaffed, making it difficult to reach a staff member or creating problems with communication. Participants who had positive experiences identified speedy responses to inquiries. The correction and representative principles are valuable in that they ensure managers and institutions rectify any issues when it comes to reporting incidents. Therefore, when librarians voice concerns about issues with HR, management should advocate for better response times or more support for their department so that inquiries are addressed by HR.

In management, participants who had positive experiences identified managers who either initiated or engaged with DEIA work and communicated this with staff and librarians. Management may not have to be involved in DEIA work or training; however, taking initiative and engaging with DEIA work or participating in DEIA training that results in the adoption of inclusive approaches, uses the ethical principle. The interpersonal principle is also an important part of ensuring that staff and librarians are treated with respect and sensitivity on the part of the manager. Participants who identified problematic management behaviors shared fear and avoidance of "complicated" or DEIA issues/incidents, performative or "lip service" DEIA work, lack of support for DEIA initiatives proposed by librarians, or experiences of overt racism with their manager. Institutions must identify the need to educate and train managers on DEIA issues and topics so that they are equipped to respond, have conversations, and engage with DEIA work that results in redress. For example, if an incident is initially dismissed, rather than doubling down on their earlier misstep, human resources and/or the manager should reflect on their decisions, acknowledge having made a mistake, and offer recourse. Norlin (2021) writes that "[m]anagers who avoid conflict and ignore problems may think that ignorance is bliss, but tension and strife in the workplace can increase the stress level for everyone" (p. 9). This requires the adoption of the correction principle as well

as the interpersonal and ethical principles where communication and humility are embodied practice in management.

Informational Justice

Atkins and Mahmud (2021) explain that informational justice is "a broadly useful frame for informational justice focuses on equitable inclusion of people, groups, and communities as they are sources of information, and they actively contribute to, seek, process, and analyze information" (p. 375). Information justice emerges in salary, workload, performance reviews, and professional development. The dominant theme in the institutional practice goes back to communication and inclusion in decision-making regarding policies and procedures. As information professionals, it is natural that participants highly value informational justice. The perception, voice, accuracy, and representative principles are important in supporting informational justice. Managers and supervisors must ensure there is informal and formal communication related to workload, performance review meetings, and changes to funding or policies around professional development. Moreover, the inclusion of staff and librarians in decision-making is important in creating an inclusive and equitable work environment, particularly when individual work will be impacted or when there are changes to institutional policies. The accuracy and representative principles are also important in instilling the idea that good practice is the inclusion of different perspectives when making those decisions.

Limitations and Future Research

In no way should this research study essentialize racialized and Indigenous librarians or managers. Racialized and Indigenous librarians have varying experiences and encompass a large group, and individual contexts can create very different experiences. Rather, this study provides a snapshot of how racialized and Indigenous librarians are impacted by managerial and institutional practices. It is worth studying this subject further to gather different perspectives utilizing different questions and approaches to add more data and analyses to the research topic. For example, interviews with participants to understand their interpretation of a fair and equitable working environment and its impact on their mental health, willingness to stay at the organization, or job satisfaction. Some open responses gave details and clear explanations for selected choices in the closed responses, but it is a limitation of survey open responses that many receive only one-word responses that do not provide clear explanations. The original design of the study included interviews, which, even with a small sample, yielded an unexpected focus on issues of identity/cultural taxation. Thus, we separated the interview data from the survey data to give this important theme sufficient space. It would be worth studying the topic further to understand how racialized and Indigenous librarians contribute to and navigate organizational justice in academic libraries. In addition, the study could be expanded to examine how professional librarians in general experience and navigate organizational practices in the areas of salary negotiation, workload, performance reviews, professional development, and management. This would provide an overall view of how these areas in an organization impact the library profession.

Conclusion

The research on organizational justice can help institutions and management assess organizational policies, processes, interactions, and information-sharing practices to better identify

where fairness and equity exist in the organization. It can be a helpful conceptual tool to examine distributive, procedural, interactional, and informational justice in the organization. One of the more important features of organizational justice is that it places the worker at the center and weighs their perspectives more heavily. In addition, the focus on fairness and equity is an important feature of organizational justice. Academic libraries are intended to be spaces and places that support fairness and equity. We must practice what we preach.

Acknowledgments

The authors would like to thank the participants for their time and willingness to share their experiences. It is not easy to reflect on and share experiences that may still impact one's personal and professional life. We hope you will experience some form of justice in your organization to support your important work. The authors would also like to thank the editor and reviewers for their time and valuable feedback.

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Appendix A: Survey Tool

What is your racial and/or ethnic identity?

What is your gender identity?

To better understand the complexity of your experience, please share any other identities that impact your professional experience:

What stage are you at in your library career?

- □ Early Career (0-6 years)
- □ Mid-career (7-15 years)
- □ Late Career (15+ years)
- □ Retired
- □ Left the Profession—At what stage did you leave the profession?

How many libraries have you worked for in your career?

How many years have you been with your current library?

- □ 0-5 years
- □ 6-10 years
- □ 11-15 years
- □ 16-20 years
- □ 20+ years

Where is your library located?

- □ United States
- □ Canada
- □ Other:

At your current library, what organizational structures exist? Check any that apply:

- □ Tenure/Permanent Status
- □ Unionization of Librarians
- □ Assistant, Associate, and Full Librarian Ranking
- □ Librarian I, II, III, IV ranking
- □ Faculty or Academic Status
- □ Not applicable

Is/was your starting salary reflective of your skills/abilities and equitable?

- □ Yes
- □ No
- □ Unsure

How was your experience with negotiating your starting salary?

Is your workload fair and equitable compared to your colleagues?

- □ Yes
- □ No

How was your experience with workload assignments and discussions?

Have performance reviews been inclusive and equitable?

- □ Yes
- □ No
- □ Unsure

What has your experience been like with performance reviews?

Have you been given fair and equitable financial support for professional development opportunities?

- □ Yes
- □ No
- □ Unsure

What is your experience with obtaining approval and financial support for professional development opportunities?

Has human resources provided supportive procedures to create an inclusive, and equitable working environment?

- □ Yes
- □ No
- □ Unsure

What human resources processes are present in your organization that allow you to report issues with supervisors, managers, colleagues, and patrons?

Has your manager or senior leaders in the library or organization contributed to an inclusive and equitable working environment?

- □ Yes
- □ No
- □ Unsure

How has your manager or senior leadership addressed any of your concerns or supported you?

Are there any other organizational structures that have impacted your career progression or interest in staying at a library?

For-Credit Library Instruction: Exploring the Experiences of Academic Librarians Serving as Instructors of Record

Elizabeth Nelson and Angela R. Davis

This article shares the initial results of an exploratory project to both survey and speak to librarians who serve as instructors of record at a variety of North American institutions to understand the perspectives and experiences of those teaching for-credit instruction. Particular attention was given to how well librarians feel they are supported as for-credit instructors of record, and if they find for-credit instruction to be of value for themselves, their library, their students, and their institution. The exploratory results can be used to shape future directions of librarian-led instruction and related research.

Introduction

Academic librarians provide instruction in an increasing variety of ways, both integrated into courses and as stand-alone sessions, such as workshops and webinars. Within courses, the "one-shot" instruction session may be the most familiar, with the librarian visiting an ongoing course to provide instruction on information literacy, research methods or skills, available resources, etc. Embedded librarianship typically broadens this interaction from a few classroom or virtual visits to librarian integration into the course learning management system (LMS), daily or weekly attendance of class sessions, roles in creation or assessment of assignments, and so forth. This research project focuses on another form of instruction: "for-credit library instruction," which this article defines as courses in which a librarian serves as the instructor of record for credit-bearing courses within their institution; they are not supporting an instructor, but are themselves the primary faculty or staff member responsible for delivering the course, assessing the students, providing grades and feedback, etc.

The "library" piece of "for-credit library instruction" does not require that the courses only deal with information literacy or research skills. At some institutions, a librarian might only be permitted to teach library-coded courses that focus on information literacy skills valuable for all students. At others, a librarian might be able to teach research methods courses for students in particular disciplines, or archive-focused courses for students in programs that deal heavily with primary sources. Additionally, librarians at some institutions may take on a secondary

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assignment—generally with separate pay and status—as an adjunct instructor to teach a wide variety of potential courses. Because respondents to this project fell into all of these categories, this article uses "for-credit library instruction" to indicate any experience in which a librarian is acknowledged as the instructor of record for a for-credit course, regardless of whether the course is a) related specifically to the library or library-adjacent areas; b) related generally to information literacy or research skills; or c) assigned to them in their job responsibilities as a librarian or under secondary employment as an instructor outside of the library.

A series of internal discussions at Penn State University Libraries about the benefits, challenges, and needs for librarians teaching for-credit courses motivated the authors to explore how academic librarians perceive and accomplish this activity more broadly. The research sought to investigate the following research questions:

- What is the perceived *impact* of for-credit instruction taught by librarians on the librarian, their library, and their institution?
- What is the perceived *value* of for-credit instruction taught by librarians for the librarian, their library, and their institution?
- What are the experiences of the librarians teaching for-credit courses?
    - What were their goals in taking on for-credit instruction and do they feel that they are meeting those goals?
    - Are they receiving adequate support for this work, financially or otherwise?
    - What challenges do they face and what kind of support do they (or would they) find most helpful?

With these questions in mind, the authors set out on an exploratory project to revisit and refresh a conversation that has been happening for decades throughout the literature.

Literature Review

Although the format and terminology vary over time and between institutions, library instruction of any kind is not a new development in librarianship. According to Shirato and Badics (1997) in their 1995 redistribution of a 1987 nation-wide LOEX survey, 61% of libraries in 1995 indicated that they provided some form of library instruction to their institutions. Approximately 30% of these libraries reported offering specifically for-credit courses through the library (pp. 228–230). A 2016 survey found that 19% of the 1,758 institutions located in all 50 of the United States that responded indicated they offered credit-bearing information literacy courses (Cohen et al., p. 567).

However, much of the academic literature produced in the 20th century on the topic of library instruction focused on "the teaching of generic skills related to the general process of retrieving and evaluating information, as opposed to the skills required for acquiring knowledge or doing research in a specific subject area" (Grafstein, 2002, p. 197). This approach may align best with the time constraints associated with one-shot information literacy instruction. Mery et al. explained, "A fifty-minute face-to-face session can focus on information retrieval but not on the more broad and complex concepts of seeking background information, identifying key terms, and the exploration needed to complement the writing process in a recursive manner" (2012, p. 369).

Supplementing the one-shot session with information literacy skills woven throughout a course via partnership between instructor and librarian can improve the success of deeper learning goals, but challenges remain. Saunders (2012) showed that, although many faculty

state support for information literacy as a vital competency for their students, the follow-through in designing courses to develop the required skills is not always there. Instead, Saunders stated that "many faculty members appear to be reluctant to collaborate or otherwise engage with librarians in instruction and assessment of information literacy" (p. 227). Many librarians have shared examples of their own work collaborating with instructors to create learning experiences for students that fall along the spectrum of embedded librarianship (Stellwagen et al., 2022; Granruth & Pashkova-Balkenhol, 2018; Egan et al., 2017). Embedded librarianship is an effective option for increasing engagement with information literacy throughout a course; however, the librarian still must work within the allowances provided by the instructor of record for the course.

Schlesselman-Tarango and Berecca (2022) discussed the value and importance of information literacy skills being taught by a course's dedicated instructor because "faculty have direct and sustained access to students and, in turn, students' perceptions and performance related to new content and pedagogical approaches" (p. 846). This "direct and sustained access to students" is one element that makes most forms of library instruction challenging. Librarians who teach only one-shot sessions may, due to lack of consistent contact with students, struggle to cover complex concepts that require multiple exposures. Embedded librarianship eases some of that challenge by ensuring more access to students but it also requires the librarian to secure a compatible and respectful collaborator among the faculty.

But what happens when a librarian steps into the role of the instructor of record and gains that direct and sustained access to students themselves? One benefit may be greater insight into students as researchers and as patrons of the library. Cunningham and Donovan reported, "As teachers, librarians can inform and improve upon other areas of their work, based on the understanding that comes from facilitating and observing information seeking and use in authentic contexts, such as the classroom" (2012, p. 186). Donnelly noted, in reflecting on their and their colleagues' experiences with teaching for-credit courses, "Because we lead students on a journey through a complete research process, we see the cognitive, technological, emotional, and physical roadblocks that they encounter when performing research tasks" (2000, p. 47). MacDonald found through her experience at University of Rhode Island that "teaching a for-credit course provides the opportunity to … [demonstrate] information literacy is a worthy and valuable subject for the overall university curriculum" (2010, p. 30). Additionally, librarians serving as instructors of record may gain a better sense of the experiences and needs of instructional faculty. As Kemp pointed out, "Walking in the shoes of the teaching faculty certainly increases sensitivity to student concerns and needs, administrative requirements, and teaching faculty workload" (2006, p. 19). By actively experiencing the demands on teaching faculty, these librarians can be better prepared to support their needs.

For-credit instruction conducted by librarians also comes with drawbacks. For example, students may not be inclined or able to fit a course into their schedule that does not directly translate into credits toward graduation requirements. As Davidson recounted from an internal survey of Oregon State University students, "approximately 63 percent of student respondents indicated they would consider taking a credit class as a means of learning library research skills. In contrast, 72 percent indicated they would take one of the described classes if it were relevant to their major" (2001, p. 157). This sentiment was echoed by MacDonald who noted "enrolling students in the [Special Topics in Information Literacy] course became logistically difficult due to the numerous other requirements for [the student's] program of study" (2023, p.

31). With rising tuition and falling enrollment since those studies, it seems safe to assume that students' reasonable reluctance to take on "unnecessary" credit-hour costs will only increase into the future, and it is difficult to justify a course if one cannot expect sustainable enrollment.

Another potential drawback is the amount (or lack) of training and preparation needed for librarians to be successful classroom teachers. For example, "most librarians have not received instructional training and may find developing assessment tools daunting" (Burke, 2012, p. 169). It is important to also note that it is relatively uncommon for any academic faculty to receive a similar level of formal training in pedagogy as compared to their K-12 peers, prior to their first teaching assignments. However, although Davis et al. reported that more than 50% of surveyed librarians who teach for-credit courses identify as teachers, and 44% further consider themselves "as much of a teacher as those who teach outside the library," that opinion may not be shared by the institution (2011, p. 693). As a result, librarians may not be targeted by outreach from campus bodies that provide instructional design support, pedagogical training, and other services for teaching faculty. This leads to the issue of workload and compensation for librarians who teach for-credit courses. Cohen et al. shared that many of the 691 librarians responding to their survey mentioned difficulties in starting or maintaining for-credit instruction programs related to lack of staff, budget, physical instructional spaces, and more (2016, p. 575). Perret summarized that librarians expressed concerns related to "excessive burdens on library staff; insufficient, non-existent, or inappropriate financial compensation; and the perceived demand to meet all expectations of professional staff and all expectations of teaching faculty simultaneously" (2018, p. 328). Regarding workload, Auer and Krupar shared that "although teaching a for-credit course provides valuable opportunities not yet available to all librarians, such as developing long-term relationships with students, it can also turn out to be costly in terms of time lost for other projects or from the librarian's personal life" (2005, p. 51).

The current exploratory research adds to the conversation by sharing the results of a survey and follow-up discussions with North American university and college librarians who serve as instructors of record. Particular attention was paid to potential gaps the authors saw in the literature: how librarians perceive the support they receive as instructors of record for for-credit courses and whether they find for-credit instruction to be of value for themselves, their library, students, and institution as a whole.

Methods

The authors developed a survey of 26 questions using Qualtrics software. The authors ensured the privacy of survey takers by allowing them to skip any questions that they felt were too sensitive to answer. All the data was kept anonymous by not requesting specific institution names, locations, or enrollments; library's names or sizes; or respondents' titles. The survey was submitted to Penn State's Institutional Review Board (IRB) and was declared exempt. Most questions were multiple choice and gathered either demographic data or information on the amount and type of for-credit instruction the respondent personally participated in and/or was aware of taking place at their current institution. The survey also included four open-response questions to gather information on the impact of librarian-led for-credit instruction on the respondent's library and institution, as well as on the support, recognition, and/or compensation they receive as a for-credit instructor. The survey questions can be found in full in the Appendix.

An invitation to participate in the survey was sent to listservs for several communities within the Association of College & Research Libraries (ACRL), specifically the College Libraries, Instruction, and University Libraries sections and to the all-member listserv for ACRL. These communities were invited to reach both librarians with specific focus on instruction and any ACRL member who might be at an institution where for-credit instruction is conducted by librarians. Invitations to participate were sent from early December 2022 through January 2023. The survey was closed in February 2023 with 107 responses, resulting in 87 usable responses for this research. Seventy-three of the respondents completed all survey questions, and 14 of the respondents completed all but the four open-text questions and were included in the result set. Twenty of the respondents did not complete the survey beyond the introductory questions and were removed from the results before analysis. While these 87 usable responses cannot be generalized to all librarians, they are useful in providing trends and experiences of active librarians who frequently use the mentioned listservs. This convenience sample is useful for the exploratory nature of this research and the identified trends can be considered for future research.

At the end of the survey, the authors provided respondents with an option to self-select into participating in focus group or interview discussions. This option linked to a separate survey in Google Forms to ensure that no identifiable information would be connected to the Qualtrics survey responses. Interviews were offered in addition to the focus groups to allow participants that preferred a more private discussion to participate in the research. In total, 26 survey respondents volunteered to participate in 60-minute virtual discussions, all conducted through Zoom and held either as individual interviews with the authors or as small focus groups of two to four participants. To ensure the privacy of the discussion participants, the authors allowed them to choose to change their displayed name on Zoom, turn their camera off, and be as selective or specific in their introductions and comments as they preferred. The sessions' video and audio were not recorded, but each author took notes independently during the sessions.

The discussions consisted of five overarching questions (see Appendix), prompting participants to elaborate further on their experience with teaching for-credit courses; the impact it may have on their position, library, and/or institution; what support, compensation, and/or recognition they have received for this work; and their perception of the value of librarians teaching for-credit courses. Discussions were scheduled over a few weeks at the end of February and beginning of March 2023. Because of the focus on participant privacy, the data gathered during the discussions is not generalizable but still provided deep insight into the personal experiences of the librarians that agreed to participate. At the conclusion of the discussions, the authors individually analyzed and coded the survey open-ended questions and focus group discussion notes before normalizing the data to develop the final dataset to analyze and draw conclusions.

This exploratory survey and the follow-up discussions focused on gathering perceptions of academic librarians involved with for-credit instruction. It did not gather wider perceptions of librarians *not* teaching for-credit courses, library administrators, or disciplinary faculty. It also focused more on gaining an understanding of the issues at play, rather than attempting to prove specific points about this work, which may be undertaken in subsequent research projects by the authors.

Results and Discussion

Survey Responses: Multiple Choice Questions

Full demographics of respondents can be found in Table 1. Most respondents were female (80.52%); Caucasian or White (88.89%); and between the ages of 30-39 (30.77%); 40-49 (33.33%); or 50-59 years old (23.08%). Most had at least four years of experience working as a librarian: 23.08% had four to seven years of experience, 34.62% more than ten years of experience, and 29.49% more than 20 years of experience. The length of time working as a librarian may suggest that most librarians pursue, or are only able to pursue, teaching for-credit once they become established in their careers. While some respondents indicated they were hired into a position that required for-credit instruction, it was typically not at an entry-level position.

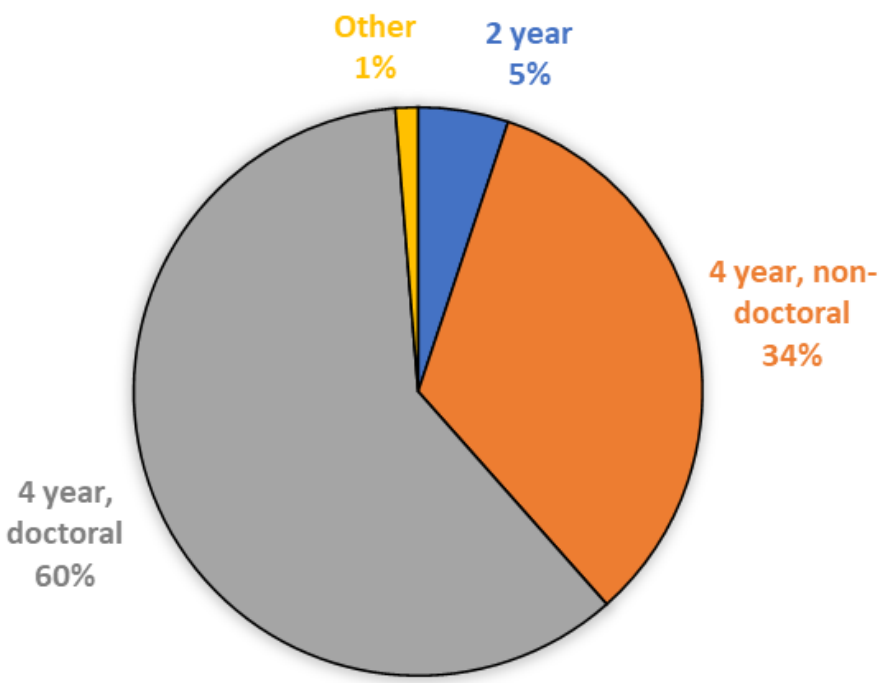
TABLE 1
Demographics

Gender identity		Race/Ethnicity		Age (Years)		Years employed as librarian		Current employment type	#
Male	12	African-American	1	Less than 20	0	Less than 1	0	Tenured faculty	29
Female	62	Latino or Latina, Hispanic	6	20 - 29	3	1 to 3	2	Tenure-track faculty	15
Non-binary	3	Latino or Latina, non-Hispanic	0	30 - 39	24	4 to 7	18	Non-tenured faculty	18
My gender is best described as…	0	Asian	2	40 - 49	26	8 to 10	8	Adjunct faculty	2
Prefer not to say	0	Native American	0	50 - 59	18	More than 10	27	Temporary or short-term contract faculty	0
Total	**77**	Native Hawaiian or Pacific Islander	0	60 - 69	5	More than 20	23	Staff	11
		Caucasian or White	72	70 - 79	2	**Total**	**78**	Temporary or short-term contract staff	0
		Other	0	80	0			Other	3
		I prefer not to answer this question	0	**Total**	**78**			**Total**	**78**
		Total	**81**						

In addition, most respondents held full-time (98.72%) faculty (82.05%) positions, with 37.18% being tenured faculty, 19.23% tenure-track faculty, 23.08% non-tenured faculty, and 2.56% adjunct faculty. The number of respondents with full-time faculty status may indicate that this role or status could grant librarians the authority to teach for-credit courses. This could also be an indication that faculty status empowers the librarian to pursue additional duties, such as serving as a for-credit instructor.

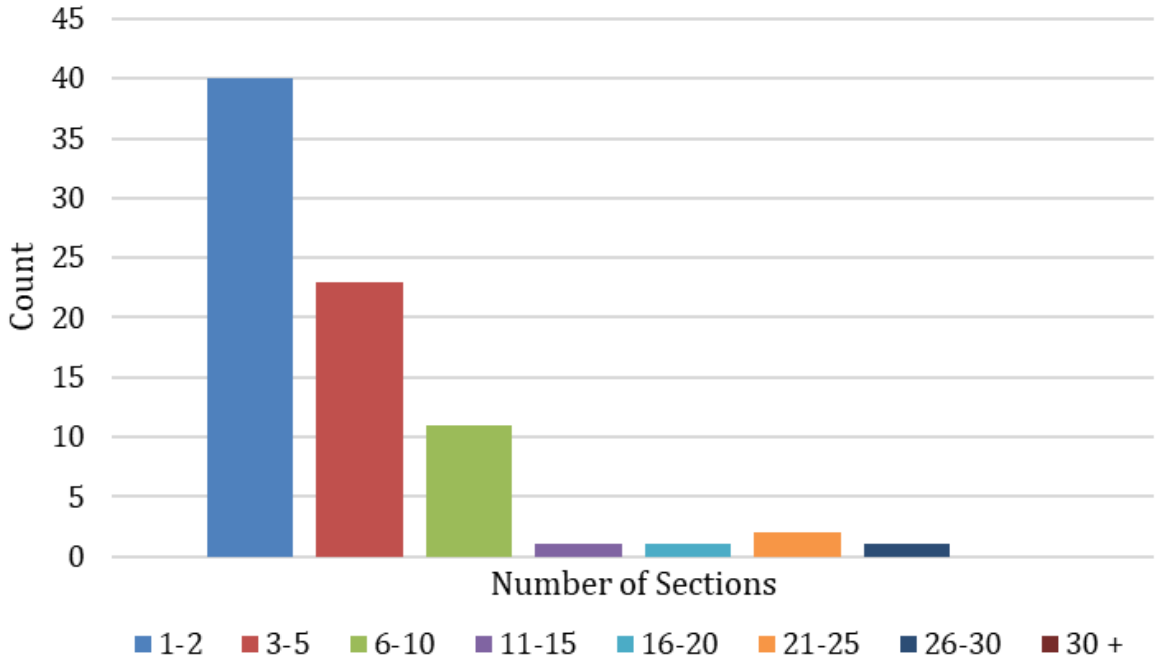
As seen in Figure 1, 93.59% of respondents were employed at four-year institutions, with 33.33% at four-year, non-doctoral granting institutions and 60.26% at four-year, doctoral granting institutions. These results are similar to those found by Cohen et al. (2016) who noted that for-credit courses were more often offered by doctoral granting institutions. The authors surmise that four-year institutions may have additional resources to support, and/or more available opportunities for, librarians teaching for-credit courses. Due to the nature of this survey and the anonymity of respondents, the number of students enrolled at each respondent's institution cannot be collected for further comparison, but this would be a valuable addition for future research.

FIGURE 1
Institution Type



Next, the survey gathered information on the amount, type, and academic level of for-credit courses taught by librarians, as seen in Figure 2. Half of respondents (50.63%) indicated that librarians at their institution only teach one to two sections of for-credit courses per academic year; 29.11% indicated three to five courses, and only 6.34% indicated 11 or more sections per academic year. These results are similar to those of Sobel et al. (2018). Of the 30 respondents to the Sobel et al. survey, 33% taught one course per semester and 33% taught one course per academic year for a total of 66%. This is comparable to the 50.63% reported in this survey and suggests that most librarians only have the capacity to take on a small number of for-credit courses on top of their library responsibilities.

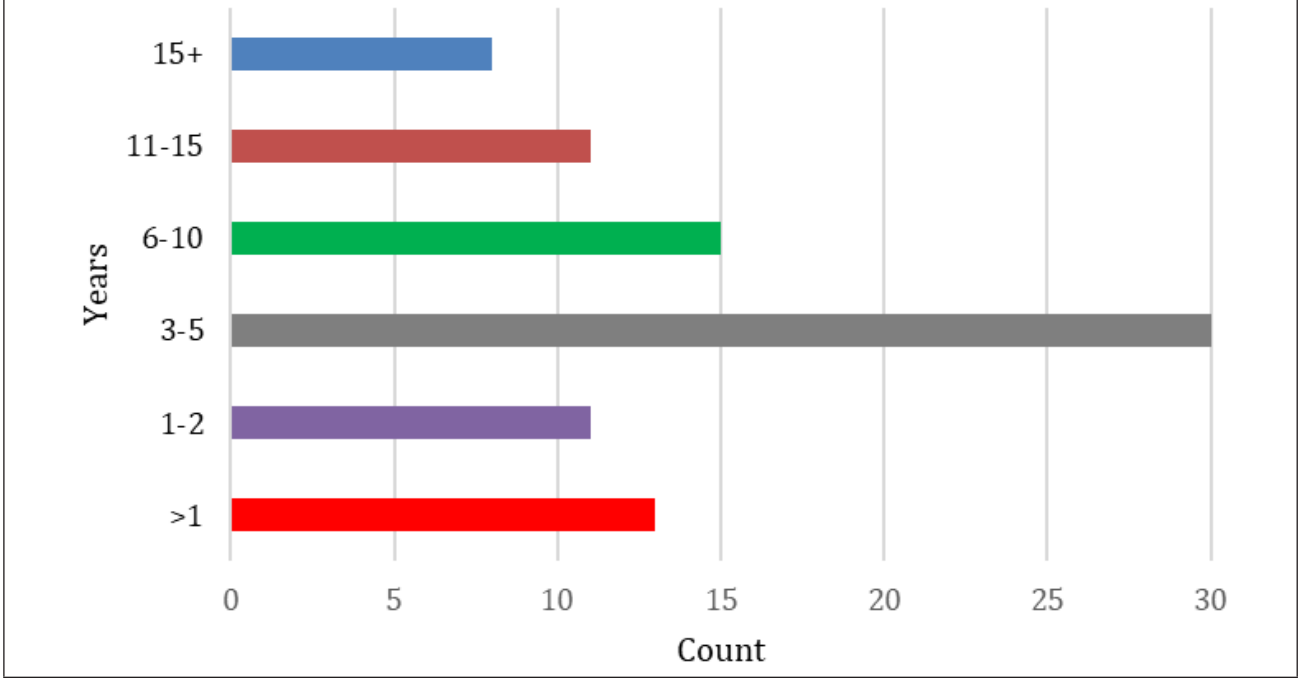
FIGURE 2
Total Sections of For-Credit Courses Taught by Librarians per Academic Year



These for-credit courses were almost evenly split between those that were considered an "elective" (53.78%) and those that were "required" for at least one-degree program (44.54%). Of the 66 librarians surveyed by Burke (2012), 39% indicated that for-credit courses were elective and 61% indicated that they were required. Davis et al. (2011) found that of the 36.9% of 276 survey participants, only 11.2% reported they taught required for-credit courses. While these findings are not consistent with the results found in this survey, it could be an indication that some institutions have come to rely on librarians and/or others outside of the typical teaching faculty as institutional priorities and budgets have changed over time. Finally, most respondents indicated that they are teaching at the undergraduate level (83.67%), with only 14.29% teaching at the graduate level. Burke (2012) also found that 58% of courses were offered at the undergraduate level but did not provide details on the courses that fell outside this percentage. This data indicates that there may be limitations placed on the level of for-credit courses librarians are permitted to teach, which may be partially determined by the librarians' academic qualifications. It also suggests that instructor-librarians may feel that information literacy skills are best taught at the undergraduate level, or that they may have greater access to teach undergraduate courses.

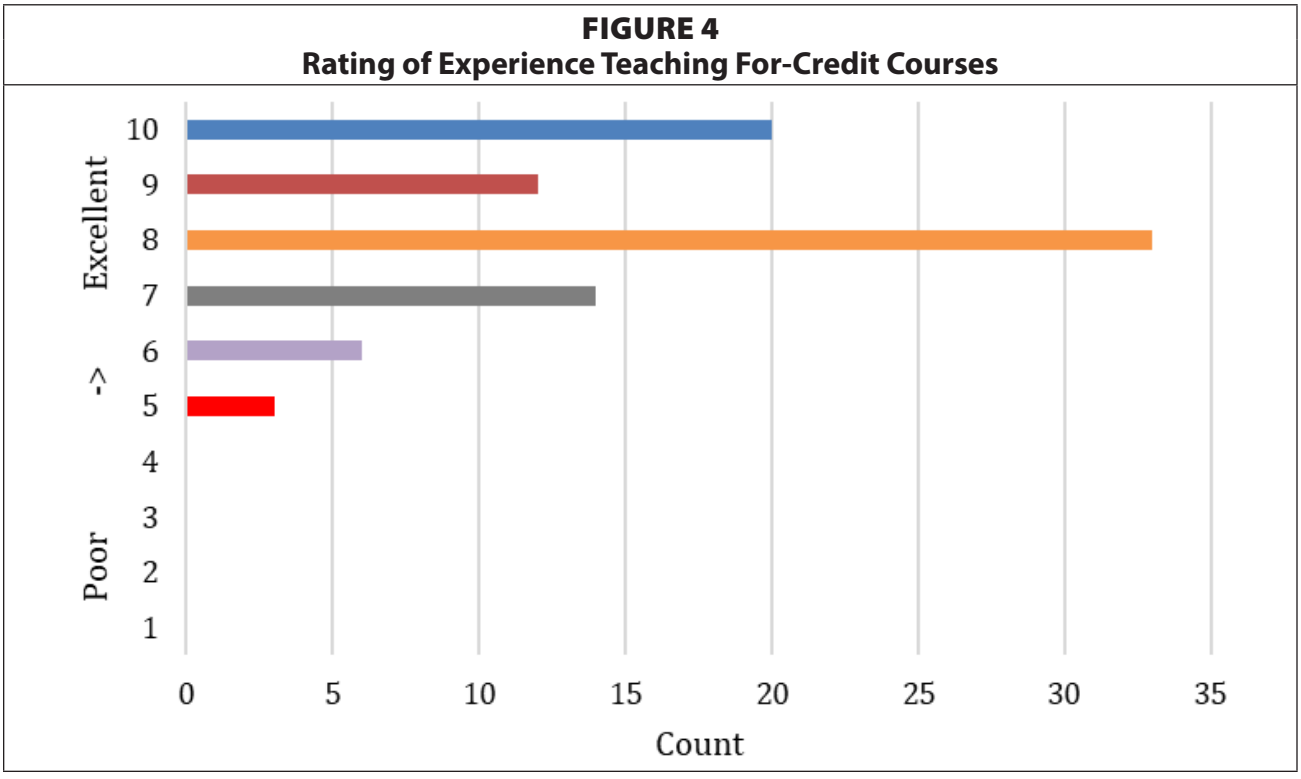
Many librarians (34.09%) had been teaching for-credit for three to five years, while only 9.09% had done so for more than 15 years, and 14.77% for less than one year (see Figure 3). Jardine et al. (2018) found similar results although that study's sample size was much smaller with only seven participants. In the Jardine study, 29% of respondents reported teaching credit-bearing courses for three to five years and 14% had done so for six to ten years. This data may support the earlier results indicating that most often this type of instruction is a mid-career activity, but there is not enough of a causal connection between these two questions to prove that here. However, it may instead suggest that for-credit instruction has begun to be a more common responsibility for librarians over the past decade.

FIGURE 3
Length of Time Teaching For-Credit Courses



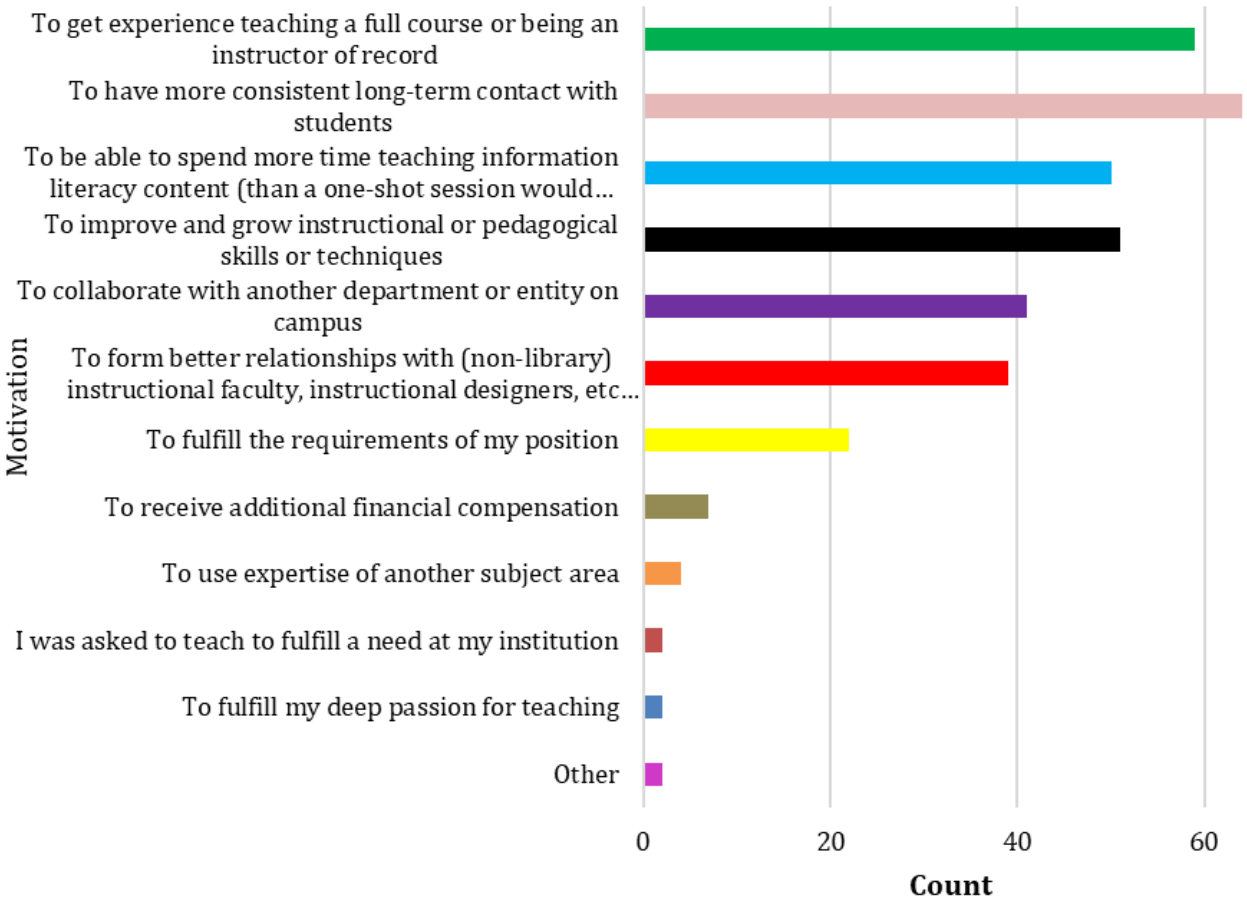
When asked about their experience teaching for-credit course(s), all respondents indicated a positive experience, with most rating eight out of ten on a ten-point scale and 22.73% rating the experience as excellent (10 out of 10) (see Figure 4). This is a strong indication that those who are involved with for-credit instruction find it beneficial, at least in terms of their own experiences. The specific benefits are explored in detail in the open-ended survey questions.

FIGURE 4
Rating of Experience Teaching For-Credit Courses



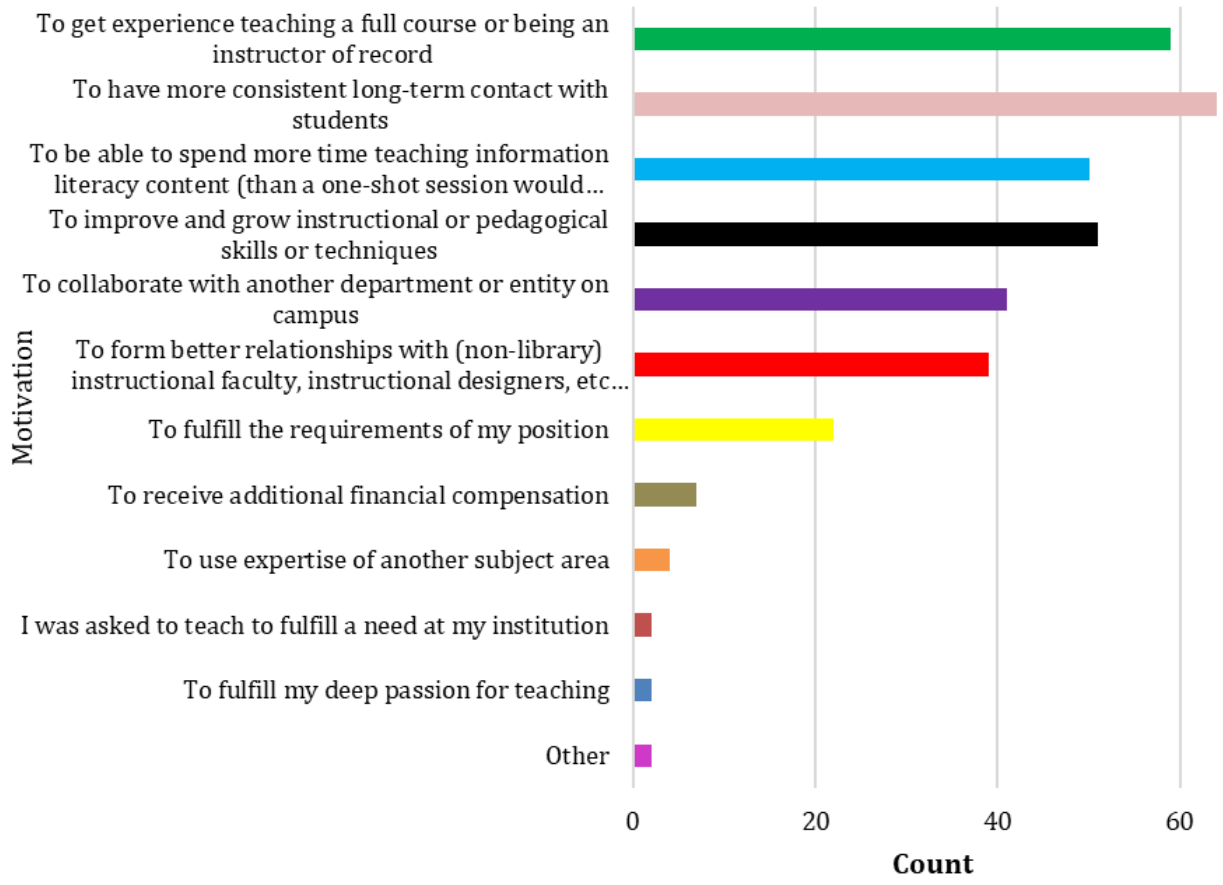
The survey asked respondents to describe their motivation for teaching for-credit course(s) (see Figure 5). The question was multiple choice, but participants also had the option to write in an "other" open-text response. The motivation was nearly evenly split within the categories, with the most chosen motivation (18.34%) being to have more consistent long-term contact with students and the least chosen (11.17%) to form better relationships with (non-library) instructional faculty, instructional designers, etc. through shared experience. An additional 6.30% of respondents wrote in other motivations that were again nearly evenly split, from 2.01% motivated to teach due to receiving additional financial compensation to 0.57% to fulfill a deep passion for teaching. The distribution of responses shows that there are many possible motivations for librarians to teach for-credit courses, and that each librarian may be motivated by a combination of factors.

FIGURE 5
Motivation for Teaching For-Credit Courses



As a follow-up question, respondents were asked whether they had achieved the goals that had motivated them to teach for-credit courses; all responded positively (see Figure 6). The majority, 17.79%, met their goal of having more consistent long-term contact with students, and 10.43% met their goal of having better relationships with (non-library) instructional faculty, instructional designers, etc. This data seems to confirm that these personal motivations and goals are driving factors in the decision of librarians to teach for-credit courses.

FIGURE 6
Goal(s) Achieved through Teaching For-Credit Courses

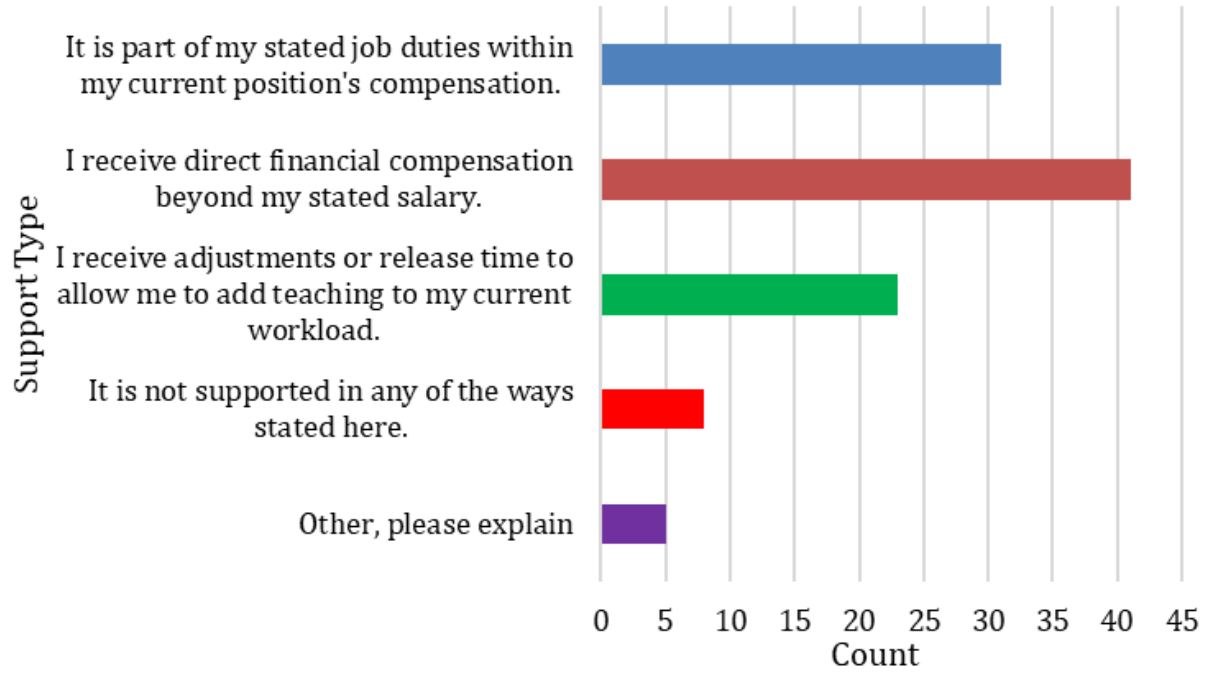


The final multiple-choice question of the survey asked respondents to indicate how their motivation to teach for-credit courses was supported by their library and/or institution (see Figure 7). The majority (37.96%) indicated that they were supported through direct financial compensation beyond their stated salary. This result is nearly identical to Cohen et al. (2016), who found 36% of their respondents received an additional cash stipend for their for-credit instruction work. This is a much higher percentage than found by Davis et al (2011), who found that only 8% received extra compensation for their for-credit instruction work.

Conversely, 28.70% of respondents to the current research's survey indicated that for-credit instruction was part of their stated job-duties and fell within their current position's compensation (in-load). This is a much lower percentage than the 40% of respondents who taught for-credit instruction considered in-load found by Sobel et al. (2018). Finally, 21.30% of this study's participants noted that, while there was no financial compensation for their teaching, they received workload adjustments or release time from their stated job duties to allow for-credit instruction to be added to their workload. Sobel et al. (2018) found that only 15% of librarian for-credit instructors receive release time and Cohen et al. (2016) reported 5% of their respondents received release time. In the current study, 4.63% provided 'other' examples of support for their for-credit courses. The most frequent 'other' example was indirect financial compensation for activities, such as professional development the librarian had pursued to improve their teaching. Some participants noted that for-credit instruction was seen as a reward itself in that it was considered a positive activity to boost tenure or annual review performance.

These data indicate that a shift has occurred overtime to move from direct financial compensation to other means of compensation. While not studied, this could be a result of declining higher education budgets and/or indicate a change in priorities for librarians.

FIGURE 7
Support for Teaching For-Credit Course(s)



Survey Responses: Open-Text Questions

The final four survey questions asked for the respondents' perceptions of the impact of the for-credit instruction on themselves, their library, and their institution. This section of the survey also gave respondents space to elaborate on support, recognition, and/or compensation for their work as a for-credit instructor and librarian. Responses to these questions were coded into multiple categories and subcategories based on areas of their work related to the question. The authors used these areas to create categories and identify themes. Similar comments made by five or more respondents were coded into theme(s) or subtheme(s). The authors individually analyzed and coded the open-text responses and then met to discuss discrepancies. These differences were resolved and categories were agreed upon by both authors. These categorized responses are discussed with each question below. It should be noted that a single response to a question may be counted in multiple categories if the respondent mentioned multiple themes within their response.

Survey question 16 asked, "How does your teaching for-credit course(s) have an impact on your overall work as a librarian in your current role?" Respondents of this question noted that teaching for-credit courses increased their own job satisfaction, motivation, and engagement with librarianship (see Table 2). They also felt that it demonstrated the value of the library, helped them build connections across the institution with faculty, staff, and students, and increased student and faculty engagement with and understanding of the role and services of the library on campus.

TABLE 2
Survey Question 16: How Does Teaching For-Credit Course(s) Have an Impact on Your Overall Work as a Librarian?

Total	#	Category	#	Category	#	Category	#
Total responses, coded into multiple categories	74	*Positives*	67	*Building Connections*	57	Connecting to non-library faculty	41
						Connecting to students	42
						Students more engaged with library	9
						Better understanding of the whole institution	15
				Improves librarianship	32	Demonstrates value of library or librarians	15
						Increases motivation or engagement as librarian	18
						Directly contributes towards promotion and/or tenure	5
				Improved as a teacher	21	Improved as a teacher	16
						Improved one-shot or other instruction	7
		Negatives	43	*Negatives*	43	Increased workload and/or time at work	43
						Increased stress	12

Five responses (6.75%) mentioned only negative impacts that teaching for-credit had on them. Most others (90.54%) noted at least one positive aspect to their work as a for-credit instructor, and 50.35% noted a mix of positive and negative aspects. The positive aspects were categorized into themes of "Building connections," "Improve[d] librarianship," and "Improved teaching," which were then subcategorized. Under the theme of "Building connections," "Connecting with students" (56.76%) and "Connecting with non-library faculty" (55.41%) had the largest number of responses. These positive impacts echo those found by Kemp who found the "benefits for librarians [teaching for-credit courses] include closer interaction with students … deeper understanding of faculty workloads, student needs, and administrative requirements … [and] enhancement of faculty status" (2006, p. 5). These results indicate that respondents feel that consistent and long-term contact with students results in students becoming more aware of and connected to the library. Blakeslee also found this to be true through her own experience teaching a for-credit course by stating, "My better understanding of the

students stems from having had extended opportunities to see what motivates and interests them … this was not possible when I saw students for one class session or met them briefly at the reference desk" (1998, p. 77). In addition, MacDonald (2023) noted the positive efforts of working across campus units to increase the awareness of librarian impact on student information literacy education. This suggests that librarians who teach for-credit courses are able to interact with, and relate to, both their students and non-library faculty counterparts in a more positive manner.

Over half (58.11%) of respondents indicated at least one negative aspect to teaching for-credit, with all the negative responses noting an "Increased workload and/or time at work." Of these negative responses, 16.22% also indicated that teaching for-credit "Increased stress." These negative responses could be due to librarians teaching for-credit as an additional responsibility and without reduction of other librarianship duties. One of the respondents summed up the overall response to this question by saying, "Yes, it is extra work, but is a wonderful addition to my job and energizing."

Question 17 asked respondents to indicate how teaching for-credit course(s) affects their library or library department (see Table 3). Many respondents noted that their teaching helped to demonstrate the value of the library and better integrate the librarians and the library as a partner to the rest of campus. However, it also created some pressures on the respondents' library and co-workers.

Of respondents, 43.06% indicated that their work teaching for-credit course(s) improved the status of their library "As a campus partner," and 33.33% noted that their work raised their personal standing on campus as well as increasing the value of the library. Davis et al. (2011)

TABLE 3
Survey Question 17: How Does Teaching For-Credit Course(s) Have an Impact on Your Library or Library Department as a Whole?

Total	#	Category	#	Category	#
Total responses, coded into multiple categories	72	*None*	19	Little to no impact	19
		As campus partner	31	Raises profile and value of library and/or librarians	24
				Helps promote library or library services	10
				Helps library better understand campus context	7
				Builds relationships across campus	9
		Focus on teaching	13	More focus on deeper instruction and engagement	7
				Reduces engagement with one-shots	7
		Reduces library services	24	Creates difficulties with shared responsibilities, projects, or staffing	16
				Limits or reduces ability to engage with library responsibilities	21

found similar results with 72% of their survey respondents indicating for-credit instruction by librarians was important to the standing and reputation of the library on campus. However, 37.50% found that their involvement with for-credit teaching "Reduces library services." Respondents noted it "Creates difficulties with shared responsibilities, projects, and/or staffing" (22.22%) and "Limits or reduces ability to engage with library responsibilities" (29.17%). Several responses also mentioned this causing friction among their colleagues. These negative aspects were found in the experience of Donnelly and her colleagues providing for-credit instruction. She noted that "changed roles [for librarians to teach for-credit] may make our staff members feel abandoned" which can lead to "relationships between library faculty and staff [to] be irritated by a gap between the two groups of workers" (2000, p. 49). These findings suggest that there must be a balance struck between for-credit and library duties to ensure the success of both.

Respondents also reported that for-credit instruction allowed them to "Focus on teaching" (18.06%). Within this category, there was an even split (9.72%) for respondents that noted they had "More focus on deeper instruction and engagement" or "Reduce[d] engagement with one-shot information literacy sessions." Finally, 19 of the 72 respondents (26.39%) indicated there was "Little to no impact" on their library and/or library department due to their work teaching for-credit courses. The fact that almost one third of respondents shared no impact could be due to their for-credit instruction taking place completely outside of their librarian duties. For example, some respondents indicated that they are employed as an adjunct instructor in another department and that the library is not involved in or impacted by the work they do outside their librarian position/hours for this department. Additionally, some respondents indicated that they did not have complete enough information to feel comfortable assessing the impact of their teaching on the library.

TABLE 4
Survey Question 18: How Does Teaching For-Credit Course(s) Have an Impact on Your Campus or Institution as a Whole?

Total	*#*	*Category*	*#*	*Category*	*#*
Total responses, coded into multiple categories	*69*	*Institutional impacts*	*36*	Builds connections across campus	*18*
				Connections to or collaboration with faculty	*11*
				Raises profile of library or librarians	*19*
		Student impacts	*36*	Better course offerings for students	*15*
				Students feel it is valuable	*7*
				More students learning information literacy skills	*24*
		Library impacts	*11*	Better campus awareness of library resources	*11*

Question 18 asked respondents to focus on how their for-credit instruction impacted their campus or institution. These impacts fell into three categories (see Table 4). The largest percentage (27.54%) noted that teaching for-credit instruction "Raise[d] the profile of library or librarians" and helped to "Build connections across campus" (26.09%). One respondent illustrated this by saying, "Teaching for-credit courses has … helped change perceptions of the librarians as educators and not simply service providers." These positive aspects were similar to Perret's (2018) results; that study found that 84% of the 139 responses indicated for-credit teaching "enhances the perception of librarians" (p. 325).

Additionally, just over half of respondents (52.17%) indicated that their teaching for-credit course(s) had positive "Student impacts." Of these, 34.78% reported that their work led to "More students learning information literacy skills" and 27.74% noted that their for-credit courses provided "Better course offerings for students. As noted by Tedford and Pressley (2010) librarian-led for-credit courses can meet students' scheduling needs by providing options that easily fit within their major's rigid schedules. Several respondents also mentioned that institutional assessments had shown that students who had taken their courses had higher retention rates than students who had not.

Of respondents, 15.94% noted positive impacts to the library, such as "Better campus awareness of library resources." In addition, these activities also had a reciprocal impact of making the library more aware of processes, systems, and daily interactions across their campus or institution. Librarians teaching for-credit are engaged first-hand with learning management systems (LMS), grading, student-instructor interactions, course assessment, etc. The knowledge gained by these instructor-librarians can then be shared with their colleagues to improve library decision making in collections, outreach, and other library responsibilities. Only a small number (11.59%) of respondents indicated that either there was no impact on their campus or institution or that they were unable to provide an answer.

Question 19 asked how these instructor-librarians perceived the support, recognition and/or compensation they did or did not receive for this work (see Table 5). The survey used the terms "support" and "recognition" without definition, which may influence results as these terms can be subjective. For example, what one respondent may see as "support" another may see as "overbearing supervision." Overall, there was an almost equal difference between the "Inadequately" (69.12%) and "Adequately" (55.88%) "recognized, compensated and/or supported" responses.

TABLE 5
Survey Question 19: Do You Feel That You Receive Adequate Support, Recognition, and/or Compensation for Your Work with For-Credit Instruction?

Total	*#*	*Category*	*#*	*Category*	*#*
Total responses, coded into multiple categories	*68*	*Adequately recognized, compensated, and/or supported in for-credit work*	*41*	Recognized enough	*18*
				Compensated enough	*18*
				Supported enough	*26*
		Inadequately recognized, compensated, and/or supported in for-credit work	*48*	Not recognized enough	*17*
				Not compensated enough	*33*
				Not supported enough	*22*

The largest number of negative responses noted a lack of adequate financial compensation (48.53%) and/or a lack of adequate support (32.35%). While Cohen et al. (2016) did not provide specific percentages, they reported that most comments about barriers faced by librarians teaching for-credit courses centered on lack of support and budget shortages. In this study, the respondents that noted negative aspects were also more likely to mention stress and/or burnout due to their for-credit activities. As suggested by the responses to prior questions, this could be a result of the librarian being tasked with taking on additional duties without reductions of their other librarian work.

The positive responses were spread evenly between those that felt adequately supported (38.24%), recognized (26.47%), and/or compensated (26.47%) for their for-credit instruction activities. It is interesting to note that many of those who felt adequately compensated for their work also felt adequately supported and recognized. However, twice as many respondents felt they were inadequately compensated as those that were adequately compensated. Many respondents who felt inadequately compensated mentioned that inappropriately low financial compensation was a problem for all adjuncts or instructors, not just for librarian-instructors.

Focus Groups and Interviews

In total, 26 survey respondents volunteered to participate in 60-minute virtual discussions, all conducted through Zoom and held either as individual interviews with the authors or as small focus groups of two to four participants. To make it impossible for focus group and interview participants to be connected to their anonymous survey responses, no demographic data was collected from the focus group and interview participants. Additionally, the participants were asked to not share identifying information about themselves while speaking to protect their privacy from each other while still fostering open conversations. Discussions were not recorded or transcribed word-for-word: rather, the authors took notes independently. Individual interviews were offered in addition to the focus groups to allow participants that preferred even more privacy to participate in the research as well.

The discussions consisted of five overarching questions, listed in the Appendix (along with example sub-questions for each main question, which were provided to clarify the scope of each question for participants). These questions prompted participants to elaborate further on their experience with teaching for-credit courses. At the conclusion of all the discussions, the authors collaboratively coded the conversations into themes.

The first theme focused on assessment and organization of for-credit instruction by librarians. Most discussion participants reported that the course(s) they taught were designated as general education (GenEd) or first-year experience (FYE) courses. The type of courses taught reported by focus group participants is similar to those found by Sorbel et al. (2018). Of the 30 participants in the Sorbel et al. study, the three most common responses to the department that housed the course(s) taught by librarians were general education (4), liberal arts (4), and first-year seminar (2). The remaining responses offered a variety of departments that only appeared once in the data. These courses are typically not required for a degree program but are offered as an option to meet institution-wide graduation requirements, and many are routinely taught by a wide variety of both faculty and non-faculty instructors, including advisors, student life/residence staff, and others. The prevalence of librarians teaching these courses in the current research may show that GenEd and/or FYE courses are more open to non-traditional instructors in general, and thus more likely to accept librarian-instructors.

However, it could also be an indication that information literacy courses are not often integrated into disciplinary curricula and are instead being offered as electives or only as GenEd or FYE courses outside of specific disciplines.

Most participants reported that they were able to propose new for-credit courses, with complete academic freedom to design and teach the course as they saw fit through the same process any instructor would follow at their institution. This could be because many participants in focus groups and interviews held faculty (or faculty-like) employment status and had the same privileges as any other faculty at their institution. MacDonald reminds that "faculty status is not the linchpin … [and the proposed course must] fulfill an identified need" (2010, p. 30). Despite this freedom, many respondents stated that they did not have the time or resources to propose new courses. This could present another reason why many librarians are teaching GenEd, FYE, and similar courses, namely, because those courses most often have a shared or standardized curriculum; do not require an instructor to create a course that reflects their own subject expertise; can exist independently of any individual discipline's or department's curriculum planning; and may offer opportunities for a librarian-instructor to easily weave information literacy and/or research skills into the shared course content (MacDonald, 2023; Tedford & Pressley, 2010; Blakeslee, 1998).

Discussion participants also reported that their library departments and/or administrators rarely provided assessment, feedback, or additional pedagogical support for their for-credit work. Instead, librarian-instructors typically received the same support as other instructors, such as student feedback and course evaluations, assessment of the course(s) at the programmatic level by institutional offices, and professional development through the institution's resource for instructional support. Overall, participants expressed a desire for more assessment, either through the institution or library, to improve their instructional practices. However, when asked about library-specific policies on instruction, very few participants had any such policies guiding their work on for-credit courses. Participants were split on whether such policies might impact librarian-instructors positively, by sharing workloads more predictably and preventing burnout, or negatively, by reducing flexibility or complicating their professional evaluations. These sentiments echo Cunningham and Donovan's (2012, p. 195) survey respondents who had a positive reaction to "the notion of conducting and using teaching evaluations as an opportunity to improve teaching; however … [it] would have minimal impact on performance … or rewards." Mulherrin et al. likewise noted that "systematic assessment tools [should] not burden instructors" (2004, p. 35)

The next discussion theme centered around the types of compensation, workload accommodations, and support the instructor-librarian may or may not be receiving for their work as for-credit instructors. There was very little consensus on how participants were compensated and variances were dependent on institutional policies, individually negotiated terms with the library and/or teaching-department, or librarian employment status. Some librarians were treated as adjunct instructors and paid at the institution's adjunct rate but had to perform all for-credit instruction duties outside of their librarian-position's regular hours. This led to issues with capacity overload, including requiring librarians to spend evenings and weekends grading or doing other for-credit course work. Others reported that teaching for-credit was part of their job duties as a librarian and could be performed during their regular workday, but that they therefore did not receive additional compensation. The most common workload accommodation mentioned was instructor-librarians lessening their participation in library

services, such as reference desk staffing or one-shot information literacy session instruction, to focus on their for-credit courses. These focus group discussions were similar to the open text responses in Perret's survey that found "concerns expressed were excessive burdens on library staff; insufficient, nonexistent, or inappropriate financial compensation; and the perceived demand to meet all expectations of professional staff and all expectations of teaching faculty simultaneously" (2018, p. 328). Tedford and Pressley (2010) noted several methods for supporting librarians-instructors, mainly through administrative and technology support, but also raise awareness that the support can, and has, been dependent on approval from library administrators. These demonstrate that there is still work to be done to support and compensate instructor-librarians equitably.

Most discussion participants reported that they received little to no training on for-credit pedagogical practices before teaching their first course. If they had received any training, it typically centered on the use of software systems to support online instruction. Mulherrin et al. found this to also be true with only "faculty members hired to teach online are required to take a five-week online training class to become familiar with the [course web] platform and … working with adult students in an online environment" (2004, p. 28). As in these findings, discussion participants shared that they pursued professional development opportunities to strengthen their personal pedagogical expertise. These activities most often were offered through their institution's instructional support offices, but some also took advantage of training offered by professional organizations. There are rare cases, such as at Wake Forest University (Tedford & Pressley, 2010) of tailored training provided by the library for their for-credit instructors. The discussion participants all expressed a desire for such support and training opportunities.

The third theme focused on the impact teaching for-credit courses had on the participants' library. Participants discussed where for-credit instructional activities fit within the priorities of their library. In general, most participants were performing for-credit instructional duties outside of their librarian duties, and therefore it was not considered part of their library's priorities. Due to this, participants' for-credit instruction separated them from the experiences and duties of their librarian colleagues, which sometimes led to overburdening of those colleagues. However, most reported that their teaching had led to an overall increase in awareness of the library's value across the institution; helped librarians be viewed as experts and peers in the eyes of the general faculty; and made the instructor-librarian more aware of the inner workings of the institution through direct contact with students and faculty. These responses echo survey results that these benefits allowed the library as a whole to build deeper connections with their campus communities. Blakeslee had a similar experience teaching a freshmen orientation course. She notes, "Even with faculty status, as a librarian it is easy to feel somewhat peripheral to what goes on in the university because you are not teaching. Sharing the teaching experience has … [given me] a greater understanding of the issues of teaching faculty and [I] hope the faculty … have a greater understanding of the issues the library faces" (1998, p. 77).

The final theme from these discussions focused on the participants' perceived value of their work as for-credit librarian-instructors. As with Cunningham and Donovan's (2012) findings, much of the value librarians found in for-credit instruction in this study was intrinsic and student focused. The majority found their for-credit instruction to be incredibly valuable and reported that it improved students' information literacy skills and critical thinking.

Additionally, participants shared that for-credit instruction made them more aware of and responsive to student needs due to the long-term and consistent interactions that they could not maintain in other forms of instruction. One specific impact several participants mentioned was improvement to collection development strategies, as librarians were better able to purchase materials based on information from students, rather than information coming only from faculty requests or filtered through librarians' assumptions. This mirrors Donnelly's reflection that librarians "can no longer make selection decisions based upon what we think students *ought* to use, but rather on what they *will* use" (2000, p. 48) and is a further indication of the value of librarians teaching for-credit courses.

However, discussion participants also emphasized that all forms of instruction librarians participate in are valuable and acknowledged their personal bias toward for-credit instruction. They agreed that for-credit instruction often works best in conjunction with other forms of library instruction, to maximize the number of students librarians can reach and support. These findings are similar to the value of various teaching methods as reported by Oregon State University Librarians (Davidson, 2001). In that study, 80% rated credit courses, 60% rated one-on-one reference desk instruction, and 50% valued written guides as essential teaching methods. As this demonstrates, all types of librarian-led instruction are valuable.

Finally, there was consensus among all participants that, for librarians to be successful with for-credit instruction, they must be willing to teach, be passionate about pedagogy, and have adequate support. All discussion participants strongly agreed that no librarians should be expected or required to teach for-credit course(s) against their preference or capacity. This consensus echoes the points made by Kemp (2006) and MacDonald (2023) in their research of librarians' role in teaching for-credit courses. Kemp states, "While meaningful and valuable for the library and the academic librarian, classroom teaching is secondary to their core responsibilities. Thus, when local conditions permit and the librarian desires to make the commitment, classroom teaching for academic librarians is highly recommended" (2006, p. 21).

Conclusion and Future Directions

Reviewing both survey results and focus group discussions reveals several interesting takeaways. While there are many variations on how librarians perform for-credit instruction, there appear to be some commonalities, especially around the amount of courses being taught, the intended audience for those courses, and the way the courses are integrated into the larger curriculum. It appears that instructor librarians are typically teaching one to two for-credit courses per year, generally aimed at undergraduates, and that many (but notably, not all) of these courses are housed outside of any specific disciplines' requirements.

Potential confusion in this project's results could arise from the difference between librarians who were teaching "library" courses (e.g., courses focused only on information literacy, research skills, archives usage), versus those who were teaching discipline-specific courses outside of and unattached to the library. Due to a lack of differentiation between the two pools of respondents, it is difficult to say whether most librarians are teaching for-credit courses focused on information literacy within the disciplines, such as "research methods" courses for specific fields of study. This differentiation would be an exciting area for future research.

Perhaps the most important takeaway is whether teaching for-credit courses is a sustainable practice for librarians to undertake. The data showed that having faculty status may be a strong indicator of whether a librarian will be permitted to teach for-credit at their institution.

However, there was significant variation among respondents who had faculty status in terms of being considered "full" faculty or adjuncts, versus being "faculty-like" but not permitted access to shared faculty governance, curricular committees, teaching unions, and other areas within the institution where faculty may maintain or advocate for control and support.

In terms of sustainability, burnout and lack of adequate support are also significant concerns. Many respondents felt their work as instructors was valuable and rewarding to them as well as to their students, library, and institution, but still mentioned difficulty managing the work needed to successfully lead their course. Although some respondents indicated that inadequate compensation and/or overwhelming workloads were the norm among most faculty and adjuncts, librarians working additionally as adjuncts may be more vulnerable than other groups. For example, one focus-group participant mentioned that survey Question 19 inspired them to investigate their own compensation. They discovered that librarians teaching as adjuncts were being paid at a significantly lower rate than others in similar roles at their institution. Future research could be done to determine if this is a widespread phenomenon or a localized problem.

This research also generated questions on whether librarians find teaching these for-credit courses beneficial, even if they do not have an information literacy focus. Future avenues for research could include comparing for-credit instruction to other types of librarian instruction, such as one-shot or embedded instruction, in terms of student learning or success outcomes. In addition, the data found that almost no librarians were provided training before teaching for-credit courses. It would be interesting to determine if this is a trend throughout academia or if it is specific to librarians. Furthermore, research could be conducted to determine the preparedness of early-career librarians and/or new graduates to teach for-credit courses. The trending increase in librarians teaching for-credit instruction, revealed here, should encourage more investigation into the potential need to prepare librarians for this role.

Finally, the most compelling recommendation from this research is that performing for-credit instruction, while valuable, must be done under the right conditions and by the right librarians to be successful. Participants were adamant that, due to the unique challenges of serving as an instructor of record, librarians should not be required to work in this role unless they are passionate about teaching, willing to take on the challenge, and provided with appropriate support and/or compensation for this work. For-credit library instruction is one tool in the library's toolkit; it may work best when integrated alongside other forms of library instruction but is not a one-size-fits-all solution to teaching information literacy. However, for those librarians who do take this work on successfully (and with adequate motivation and support), it seems likely they will increase their own job satisfaction, improve students' engagement with the library, form better connections with non-library faculty, increase the profile of the library on campus, and gain a deeper understanding of their role as both librarians and instructors.

Acknowledgements

The authors would like to acknowledge and thank our survey, focus group, and interview participants for their willingness to make time to answer our questions and their enthusiastic contributions to our live discussions.

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Appendix: Survey and Focus Group / Interview Questions

Survey questions can be found as a PDF file at the following URL: https://drive.google.com/file/d/1cwomFcX3QPPAArzAOcLBonGaGHmSKBNi/view?usp=sharing

Focus group and interview questions can be found as a Google Doc file (the format in which they were shared with participants) at the following URL: https://docs.google.com/document/d/1sNYPExvdc5cuhCor3Y8HmMdscejev76mp8D5WWbeatk/edit?usp=sharing

Anyone experiencing difficulties with accessing these files, or requiring an accessibility accommodation to effectively view them, is encouraged to contact the authors at ezn80@psu.edu *and* ard21@psu.edu.

Previous Presentations of This Work

This work was previously presented at the Library Instruction Together (LIT) 2023 conference.

Slides from that presentation can be found at the following URL: https://docs.google.com/presentation/d/1P5J8Y2MSsfuzFR9uQ3l0mjb8UBgA9O1w9e_xRXGxYkY/edit?usp=sharing

The presentation was recorded live. This recording can be found on the LIT Youtube Channel and at the following URL: https://www.youtube.com/watch?v=i7wqWruCVF4

Texas Library Workers on Censorship in the State: Implications for Practice for LGBTQIA+ Collections

Josh Salmans, Shelby Hebert, and Erin Burns

Censorship efforts, especially when geared to fight against censorship of materials for minority sexuality and gender identities, are often hindered by social, cultural, religious, administrative, and political resistance. LGBTQIA+ collections within libraries face resistance, which can come in the form of overt or covert challenges. This study examines the experiences of Texas libraries with materials and book challenges through a survey conducted in summer 2023 to discover the policies and responses to censorship attempts. It also discusses implications for practice regarding material challenge policies and proactive approaches to intellectual freedom.

Introduction

Critical librarianship asserts that libraries are not neutral and that librarians must engage with their collections in a way that incorporates social justice into library practice (McAuliffe, 2021; Brink Drescher, 2022; Mathiasson & Jochumsen, 2022). These efforts, especially when geared to fight against censorship of materials for minority sexuality and gender identities, are often hindered by social, cultural, religious, administrative, and political resistance. Queer collections within libraries have been fraught with such resistance, given that it challenges power structures and social norms (Barr-Walker & Sharifi, 2019; Bale 2017). For school and public libraries, encountering such resistance is historically familiar and expected. Many have developed policies and procedures to form a defense against challenges designed to marginalize and remove perceived offensive material. In academic settings, the discussion of such challenges is not readily found within literature. With the advent of Texas's Senate Bill 17 (SB17) and other legislative encroachments on academic freedom and tenure from members of the Texas legislature, we want to extend the discussion on material challenges beyond school and public libraries to include publicly funded academic institutions, as they may soon become more targeted by political movements. This article explores if, when, and how librarians perceive the occurrence of censorship in academic library settings in Texas and offer strategies for academic librarians everywhere to utilize to combat it.

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Nature of Challenges

Challenges to materials within the walls of libraries is not a new concept. History is replete with examples of attempts to censor materials. Beckham (2022) cites some of these occurrences from 3rd B.C.E. to the modern era in North American jurisprudence. These scenarios include censorship, or attempts at censoring, religious ideologies or debates, anti-slavery literature during the Civil War era, and nineteenth and twentieth century legislation crafted to define and restrict what was seen as "obscene, lewd, or lascivious," "immoral" or "indecent" (Beckham 2022). From the twentieth century to the present day, Beckham notes, school libraries have become the focal point of challenging materials as parents sought to have titles removed as they perceived the titles to be contrary to social norms, profane, contrary socially acceptable sexual or political content, or inappropriate their child's ages group (2022; Banned Book FAQ, n.d.).

Beckham (2022) defers to ALA, PEN America, and other library literature to further define challenges and bans. The American Library Association (defines a challenge as "an attempt to remove or restrict materials, based upon the objections of a person or group" 2016). Such challenges often have implications greater than the personal beliefs of the individual parent and seek to remove access to challenged material from all students (Beckham, 2022). Based on the literature, we propose that libraries face two types of challenges: overt and covert. Overt challenges are formal objections from library users through official processes, such as challenge forms or through email to an appropriate library administrator or librarian. Overt challenges may also result in legislation that targets controversial materials. Covert challenges are often more dynamic and clandestine (i.e., theft of titles, hiding titles, or purposefully vandalizing or destroying titles). Such challenges are more difficult to measure as motivations for these types of activities are not easily discernable because it is not unusual, in the course of normal library operations, for items to go missing, whether they are incorrectly shelved, incidentally removed from the premises, or never returned. Deciphering intent is difficult to prove in any case. Some patrons may have political motivations for improperly removing titles while others may have personal reasons for engaging in these activities. Not all removals are necessarily a challenge. Members of marginalized perspectives or identities may resort to secretly taking titles on sensitive topics, such as sexuality, gender identity or expression, or reproductive rights, to avoid the embarrassment of interacting library staff during check out, or to avoid having a record of their checkout materials on their account.

According to Beckham (2022), when a title is challenged either through overt or covert means, two actions can be taken: restriction or removal. Restriction involves cordoning the title into a special section where a student would have to have a signed waiver from a parent to access it. A removal or ban is the "physical elimination" of challenged material from a collection and, consequently, denying access to all patrons (ALA, PEN America). Bans can be implemented at the request of parents or community members, administration officials, through "threatened action by lawmakers or other government officials" (Beckham, 2022, p. 6).

All these tactics mentioned previously can create "a phenomenon called the chilling effect" (Downey, 2018, p. 121). Librarians may be inclined to self-censor their collection development practices, avoiding politically charged interactions with administrative, political, legal, and community apparatuses (Best, 2007; Buschmann, 1994; Buschmann, 2009; Downey, 2018; Greenhaus, 2023). Furthermore, librarians' own personal or political biases may be another factor in decisions related to material selections, and/or in choosing to take the path of least

resistance and contribute to covert censorship of materials before the public or the institution is aware of it (Asheim, 1953; Best, 2007; Brink Drescher, 2022; Cain, 2006).

"All librarians have biases," asserts Downey (2018), "knowing our biases and making a proactive, concerted effort to keep them out of our collection activities is part of the job of a professional and ethical librarian" (p. 122). Harris (1999) questions librarianship's commitment to this process even at the academic level. Contrary to what they view as rather vague and lofty declarations in the Library Bill of Rights, Harris argues that the promotion and tenure process with academia can be an effective mechanism to curtail speech within academic arenas and can contribute to librarians engaging with self-censorship. Mann (2017) specifically extends this conversation to the need for academic librarians to have both academic and intellectual freedoms to pursue inquiry along with their colleagues in other colleges.

While academic libraries are not the usual target of these types of challenges, Best (2007) questions whether academic libraries also avoid controversial titles in personal decisions in collection development. Do curricula based controversial literature have any influence on collection development, especially in children and young adult titles? Does geographic location play a role in self-censorship even in academic settings? Considering that some states, such as Florida and Texas, have proposed and passed legislation targeting this process within academia, university libraries most likely will not be immune to such efforts to censor materials and may need to learn from school and public librarianship on how to protect collections from myopic attempts to rid them of holistic, inclusive, and representative titles.

Given that the academic librarian profession suffers along with higher education in general of a diversity crisis, it behooves the profession to re-evaluate its long-held conceit of neutrality. Brink Drescher (2022) discussed this issue of neutrality and investigated what "triggers and/or preconditions that led academic librarians to … interrogate their [own] worldview" and privilege to become active in social justice causes for disproportionate and underserved minority by introducing the framework of critical transcendence. Brink Drescher cited Goodman's (2011) admonition that, "People from privileged groups tend to have little awareness of their own dominant identity, of the privileges it affords them, of the oppression suffered by the corresponding disadvantaged group, and of how they perpetuate it" (p. 22). Given this reality, Brink Drescher (2022) reminds academic librarians, who typically are persons of privilege, that it is in these times of extreme polarization and censorship that the concept of neutrality does a "disservice to underrepresented groups with whom they work and serve" (p. 16). They further suggest that it is imperative for academic librarians to avoid this dynamic by becoming culturally competent so they can demonstrate inclusive leadership in cultivating an environment where peers and patronage from underserved and underrepresented groups can flourish.

Current Climate

The American Library Association writes at length about censorship in school and public libraries; however, censorship within the academic library setting is rarely addressed. The organization says, "Books usually are challenged with the best intentions—to protect others, frequently children, from difficult ideas and information" ("About Banned & Challenged Books," 2012). This dynamic may be due to a few factors, including lack of awareness about censorship occurring at universities, the belief that college students are in less need of protection from "dangerous" books, or that it simply does not occur.

At the heart of each Library Bill of Rights tenet is a commitment to protecting information access. The Library Bill of Rights overtly addresses censorship, and it defends the right of the public to make decisions regarding individual information needs. This codified opposition to censorship and the commitment to developing diverse collections that meet community needs are essential components of a librarian's code of ethics. Despite efforts by librarians and the American Library Association, the problem persists (Library Bill of Rights, 2006). The American Library Association released the "ALA (American Library Association) Statement on Book Censorship" in 2021. In the statement created collaboratively by all eight of the American Library Association's divisions, the organization condemned censorship saying, "We are committed to defending the constitutional rights of all individuals, of all ages, to use the resources and services of libraries. We champion and defend the freedom to speak, the freedom to publish, and the freedom to read, as promised by the First Amendment of the Constitution of the United States" (ALA Statement on Book Censorship, 2021).

The American Library Association is far from the only professional library organization; however, opposition to censorship is a shared value among most organizations. In a 2019 statement on censorship, the International Federation of Library Associations and Institutions wrote:

> Censorship is a breach of respect, on the part of some members of society, for the human dignity and equality of other members of society. This is achieved by preventing some persons from enjoying access to the same information and ideas as are available to those responsible for or affecting the censorship. Because censorship prevents the enjoyment of several generally recognized human rights, as expressed most fundamentally in the Universal Declaration of Human Rights, IFLA (International Federation of Library Associations) emphatically argues for principles of freedom of expression and freedom of access to information.

At the same time, attempts to ban books are increasing, OIF (Office of Intellectual Freedom) documented "1,269 demands to censor library books and resources in 2022, the highest number of attempted book bans since ALA began compiling data about censorship in libraries more than 20 years ago. The unparalleled number of reported book challenges in 2022 nearly doubles the 729 book challenges reported in 2021" (2022 Book Ban Data, 2023). When compared to the 458 challenges issued in 2003, attempts to censor library collections are increasing significantly, and these challenges are increasing with the help of organizations that distribute lists of books deemed unacceptable. The American Library Association estimates that 90% of book challenges include multiple titles with 40% of all challenges including 100 titles or more ("2022 Book Ban Data," 2023).

While the American Library Association collects data on book challenges and successful bans, one only needs to look to the news to find evidence of rampant attacks on library collections and employees. In Texas alone, the Llano County Public Library was subject to a closure attempt over collection items (Albanese, 2023); books were pulled off the shelves in multiple school libraries (Hixenbaugh, 2022); and the state itself banned 801 books from school libraries (Lopez, 2022). At the time of writing, these are a few examples of the most recent attacks on library collections; however, challenges occur quickly enough that these examples will not be recent at the time of publication.

Beyond direct attacks against libraries, a culture of distrust and aggression exists. Multiple well-connected groups are involved in organized efforts to challenge books. Moms for Liberty is perhaps the best-known and most powerful of these groups. The Southern Poverty Law Center (SPLC) describes Moms for Liberty as, "an antigovernment organization" with their focus being on eliminating "woke indoctrination" in public schools (2023). The group opposes most positive depictions of LGBTQIA+ experiences and discussions of racism.

Moms for Liberty's impacts are not exclusively bound to a K-12 setting. The SPLC points out that "the organization has openly expressed opposition to the current administration's proposed changes to Title IX, which would provide more rights and accessibilities to the LGBTQ community" (2023). In April of 2024, the Biden administration expanded the protections offered by Title IX: "The U.S. Department of Education announced rule changes [in April] to Title IX, the federal policy prohibiting discrimination on the basis of sex in education programs or activities that get federal funds. The final rule expands the definition of sex discrimination to include gender identity and sexual orientation" (Dupree, 2024). While Moms for Liberty does not address the impacts of the Title IX expansion on adults attending college in either its social media or official statements regarding the expansion, the results of anti-LGBTQIA+ lobbying can be felt in the realm of higher education (Moms for Liberty, 2024; Justice & Descovich, 2024). Texas governor Greg Abbott sent a letter to Texas universities on May 8, 2024, ordering all public universities and colleges to ignore the Biden administration's expansion of Title IX stating, "Last week, I instructed the Texas Education Agency to ignore President Biden's illegal dictate of Title IX. Today, I am instructing every public college and university in the State of Texas to do the same" (Abbott, 2024). The protections Title IX would now afford to LGBTQIA+ students in Texas are not only being denied to those under the age of majority but to full-fledged adults attending institutions of higher learning as well.

Unfortunately, Moms for Liberty is not alone in their attacks against Texas libraries. SPLC tracked 72 hate and antigovernment groups located in Texas in 2022. This list also includes five explicitly anti-LGBTQIA+ groups, however, these groups share values and sometimes work in concert with one another (2022). One such example occurred within our own community. On July 13, 2023, the Lubbock chapter of the True Texas Project hosted Tracy Shannon, an anti-library activist. The True Texas Project is categorized as an antigovernment organization by the SPLC; however, Shannon leads the Texas chapter of Mass Resistance, an organization categorized by the SPLC as an anti-LGBTQIA+ group. The event, titled Defeat the Dirty Books, was advertised in the following way:

> Come learn how to find dirty books and get them out of schools and public libraries! You will be shown the sneaky tactics, key players, and machinery of the dirty book pushers and 'change agents' who have been pedaling smut and child sexual grooming materials in public libraries and school libraries (True Texas Project, 2023).

The well-organized nature of these challenges and collaborative approaches of anti-library groups empowers community members who oppose the inclusion of LGBTQIA+ materials in library collections to challenge collection items at the exponentially higher rates referenced previously. The change in how challenges occur also puts library employees in the difficult

position of deciding whether to preemptively censor materials themselves (Downey, 2018; Greenhaus, 2023). This dilemma presents issues that are difficult to prognose without an analysis of the nature of challenges and what forms they take in practice.

While the public focus of these organized attacks on libraries centers on child welfare, the wider climate provides essential context. In 2023, Texas passed SB17, colloquially known as the Texas anti-DEI bill. Under this ban, "public colleges are prohibited from creating diversity offices, hiring DEI employees, or requiring DEI training for students or employees" (Spitalniak, 2024). The resulting fallout from the passing of SB17 included a change in available services to marginalized students and job loss for some employees of Texas colleges and universities. Attempting to comply with SB17, the University of Texas at Austin laid off around 60 employees with plans to shut down some of the offices those employees worked in (Xia and Dey, 2024). It is still too early to understand the full implications of the passage of SB17, but early compliance with the bill could create a chilling effect among Texas scholars out of fear of job loss and further retaliation from the state.

Methodology

Our survey was partially developed using research from Matacio's 2003 study of Seventh Day Adventist colleges and universities, which investigated materials challenges that these colleges and universities faced, and how they dealt with such challenges. In addition, we developed separate questions for this survey to see if librarians, or library workers who have collection development responsibilities, also had any responsibilities when it comes to participating in the removal of such items (i.e., did their library have a set number of people who were allowed to work on the challenge materials, or is it the decision of only one person at the library, or a board decision with no input from the librarians). We developed other questions to gather data on the recent laws and challenges that libraries and librarians are facing in Texas. Using Qualtrics, we built the survey using an institutional account through Texas Tech University's Rawls Business School. To measure and evaluate the effects of recent censorship laws and bans affecting academic libraries, we developed a survey that would also collect some demographic data to identify trends.

At first, our survey was to be sent only to Big XII R1 institutions. However, this was too small a sample size and would have resulted in the possible exposure of personal identifying information. After this discovery, we stopped collecting information, submitted modifications to our IRB, and deleted all previously submitted surveys. Those modifications enabled us to broaden our collection to include public, special, and other types of libraries and knowledge workers (e.g., museums). However, we kept the scope to the libraries in the state of Texas.

We sent the survey link multiple times to the Texas Library Association (TLA) listserv in July and August 2023, as well as to ALA and ACRL (Association of College and Research Libraries) main listservs through ACRL Connect. The total number of responses totaled 187, with two answers being "tests." These answers were removed and demarcated for a total of 185 submissions to the survey.

We know that many people work on the "honor system" when it comes to taking these types of surveys; however, once the survey was deployed out to the ALA listserv, the survey had a few respondents from outside of Texas. We kept those responses in the data, if only to show the vast differences in opinion that workers in librarianship have towards this topic.

Results and Discussion

Respondent Demographics

There were a total of 185 useable responses. Several demographic data points were collected, including age range (see Figure 1) and the environment in which their library is located (see Figure 2).

FIGURE 1
Q3: Respondents' Age Range (n = 173)

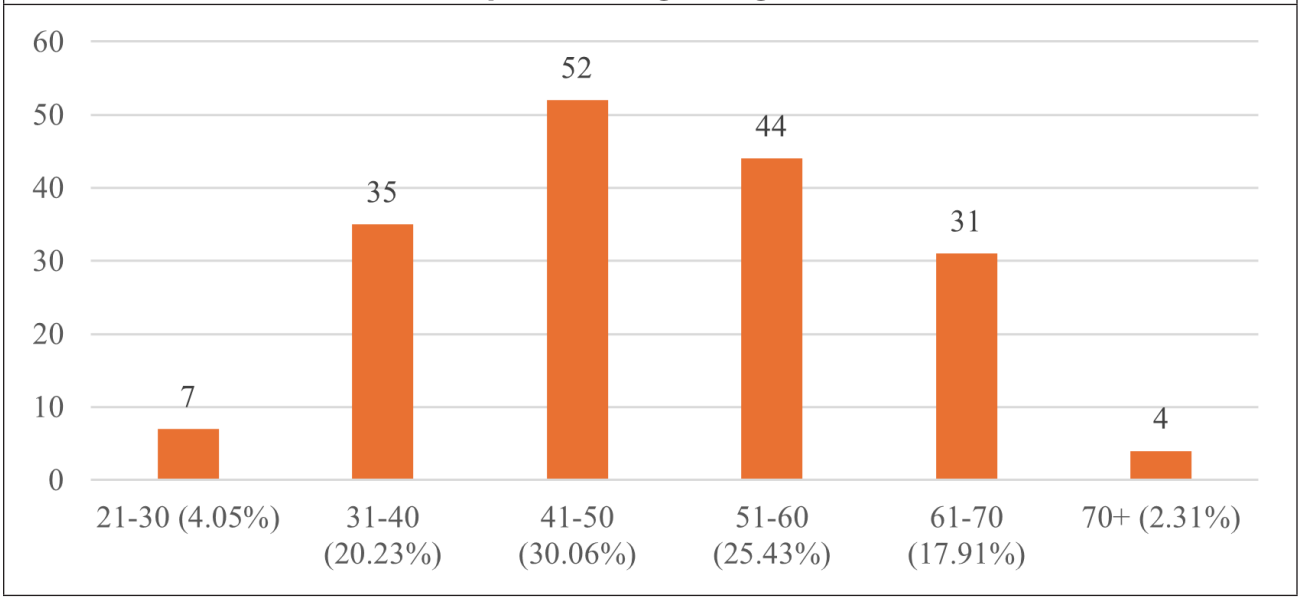
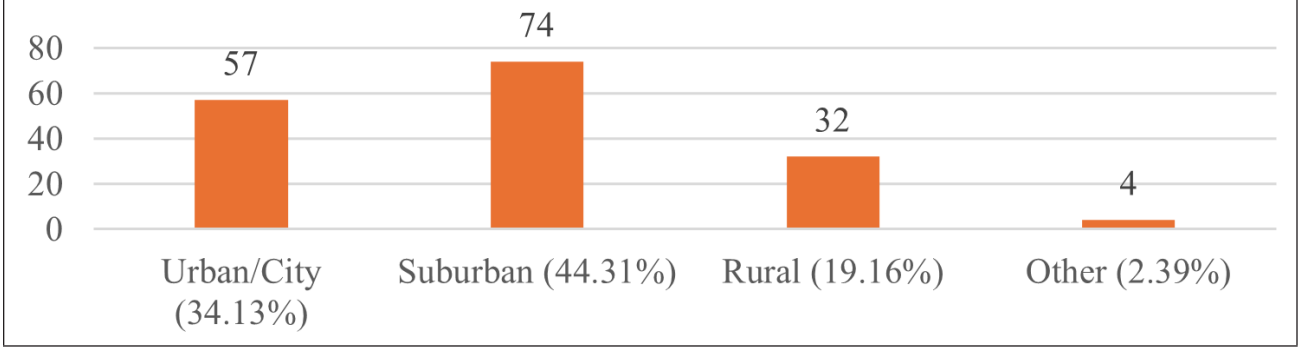


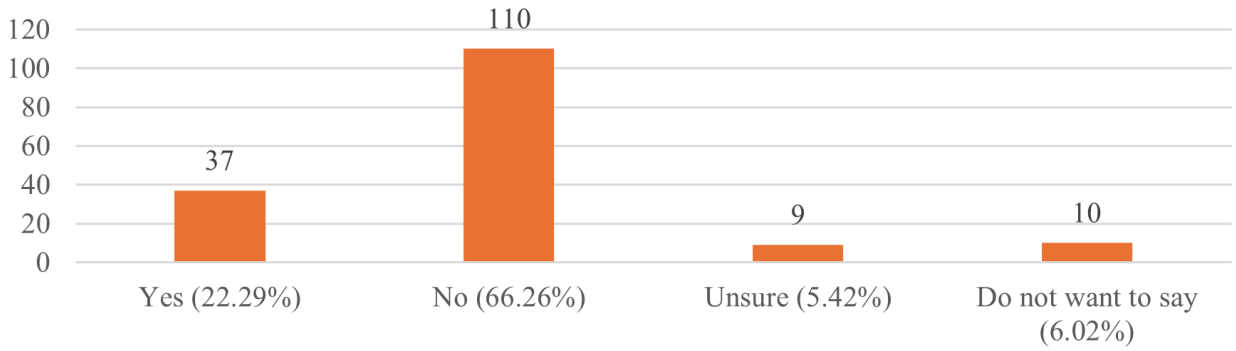
FIGURE 2
Q10: In which of the following environments is your library located? (n = 167)



Texas is a very large state in both population and land area, and it has many rural libraries; therefore, we were interested in respondents' location. Thirty-two respondents (approximately 19%) indicated that they are located in these rural areas. Most respondents indicated that they were in suburban areas of Texas, with 74 respondents (approximately 44%), and 59 (approximately 34%) of respondents indicated that they are in urban/city environments.

The survey also asked whether the respondent considered themselves to be a person from a not historically marginalized community, to which 110 respondents indicated no (see Figure 3). This may be because of the documented whiteness of the profession, and the access to the listservs, which requires the ability to personally pay for access to ALA and TLA and be a part of the professional organizations.

FIGURE 3
Q11: Are you considered to be part of a historically underrepresented or marginalized group? (n = 166)



Graphs are situated so that the number of responses is outside the bars and the percentages are with the x-axis data. The ages of survey participants implicate power differential between those taking the survey and those who the topic might affect, as more people who were 30+ answered the questions, many of whom had been in their jobs for more than 10 years (see Figures 4 and 5).

When asked if they currently worked for a library or a museum in Texas, 152 said yes, 18 said no. Participants were then asked a series of questions about their jobs as library workers, including current length of employment in the state of Texas as a library worker (Figure 4), length of time people have worked in their jobs at libraries (Figure 5), type of library people work for (Figure 6), and an open-ended question where participants could share job title if they were willing.

Library Job Types and Collection Development

The survey also asked what type of library people work for and included an open-ended question where participants could share job title if they were willing. When asked what type

FIGURE 4
Q5: How long have you worked at your current library or museum? (n = 172)

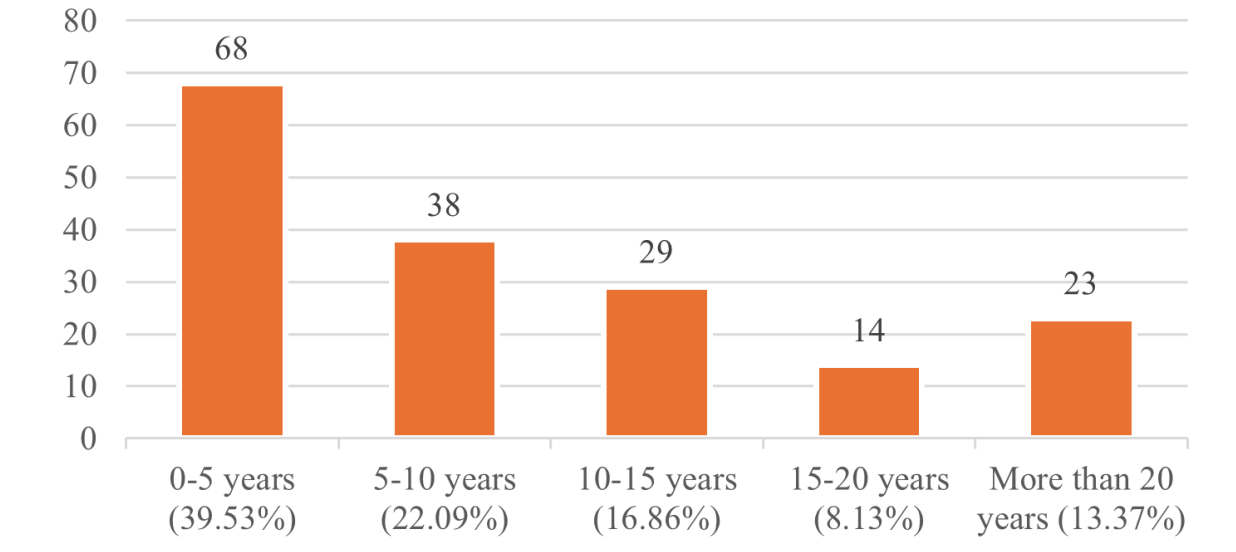
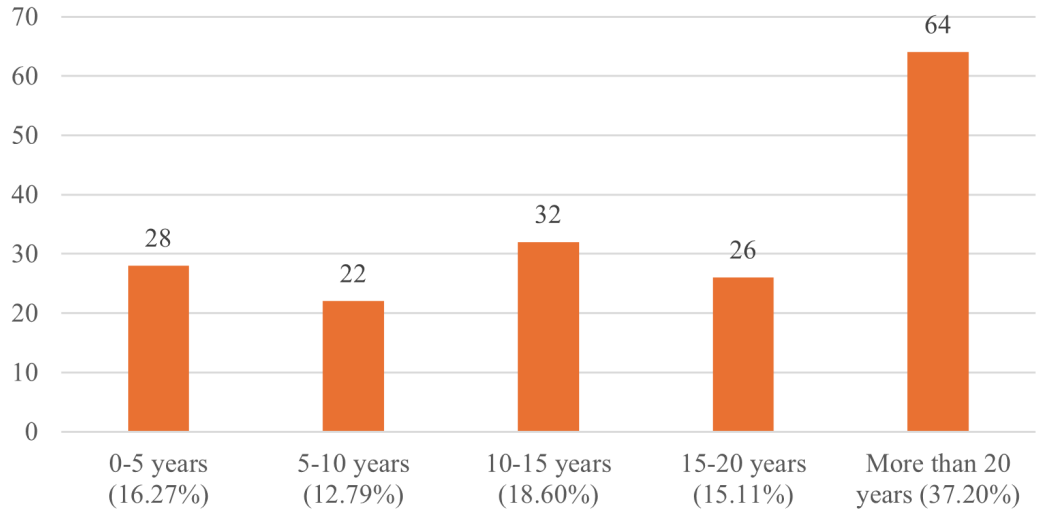


FIGURE 5
Q6: How long have you worked in libraries in your career? (n = 172)



of library people worked for, 64 people responded at public libraries, 55 at academic libraries, 3 at special libraries, 42 at school libraries, 1 archives/museum, and 6 said "Other" (see Figure 6). "Other" for this question allowed people to write in, and those answers included "retired," "library system," "vendor," "archive and special collection library," and "school district and library director."

If the respondent selected "academic library," they were shown a question regarding what type of higher education institution. Most people from academic libraries who took this survey were working at a four-year graduate/doctoral granting institution (37 respondents, almost 70%)(see Figure 7). Job titles varied across fields, but within the public library responses, there were 24 responses that indicated the participants were directors or assistant directors of their libraries, four youth services librarians, and various other technical and librarian roles. Academic library job titles included nine academic deans or associate heads of departments,

FIGURE 6
Q7: Are you currently working for: (n = 171)

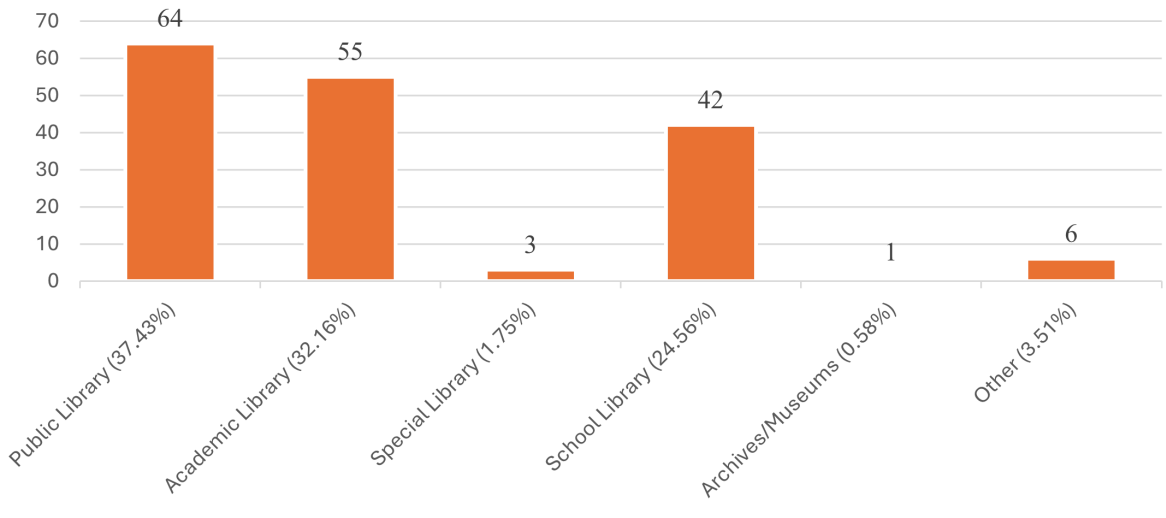
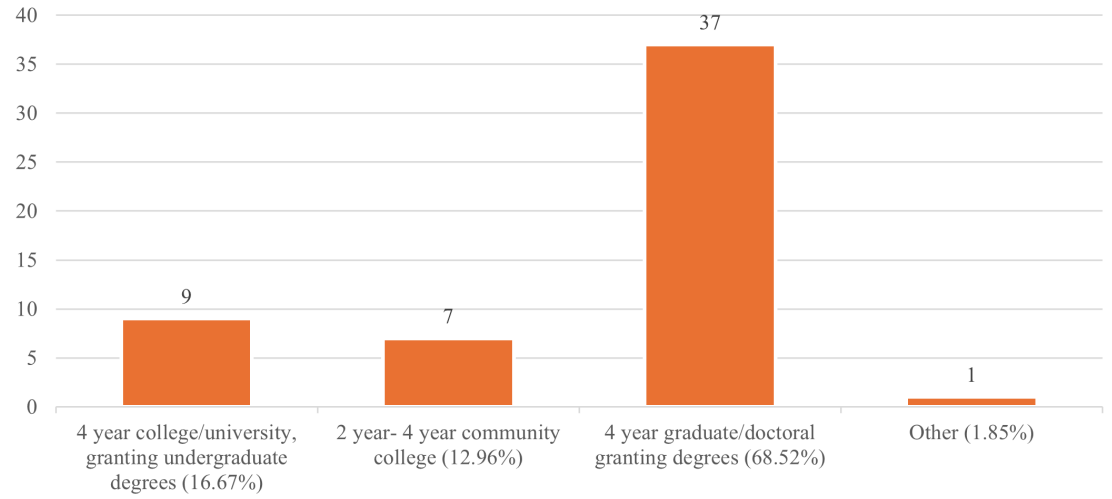


FIGURE 7
Q8: If you work for an academic library, please select which type of academic library you work for (n = 54)



and various other roles, including but not limited to: liaison librarians, associate librarians, research services, electronic resources, metadata analysts, and program coordinators. School librarians also had a variety of roles, including district librarians, coordinators, media technology specialists, and lead librarians. Furthering this discussion, the survey presented a question about collection development roles, as wielding purchasing power may be related to any challenges that may be faced to the collection (see Table 1).

TABLE 1
Q13: Which describes your collection development responsibilities? (multiple answers allowed) (n = 327)

	Public Library	Academic Library	Special Library	School Library	Archives/ Museums	Other	Total
Acquisitions	33	16	2	35	1	0	86
Selectors	34	22	1	32	1	0	92
Inventory	26	12	2	33	1	0	74
Other	19	30	1	6	0	3	59
None	7	7	0	0	0	2	16

Participants were then asked about daily work duties and collection development responsibilities, and answers varied greatly across the types of libraries. These answers were not coded or graphed for this article, as we did not want to identify any participant through their answers, but there were a variety of administrative and public facing roles, including but not limited to: outreach, engagement, reference services, teaching, readers' advisory, circulation, and "everything." Several people also indicated that they were retired librarians taking this survey.

TABLE 2
Q14: Are you aware of a materials/book challenge policy at your workplace? (n = 156)

	Public Library	Academic Library	Special Library	School Library	Archives/ Museums	Other	Total
Yes, I was told during the hiring process	37	5	2	17	0	2	**63**
Yes, but I had to seek out that information	19	14	1	19	0	2	**55**
I am unsure if we have a policy like that	2	18	0	0	1	0	**21**
No, but we are developing one	2	5	0	2	0	0	**9**
No, and no plans to develop one	1	7	0	0	0	0	**8**
Total	**61**	**49**	**3**	**38**	**1**	**4**	**156**

Knowledge of and Preparedness for Book and Material Challenges

Question 14 asked the participants if they were aware of a materials or book challenge policy at their workplace. The respondents from academic libraries are far less likely to have a policy or have been told about one during their hiring processes, than their colleagues at public libraries or school libraries. Public libraries and school libraries seem to discuss this aspect more during the hiring process in Texas libraries (see Table 2). One comment from later in the survey pointed out that we should have defined book and materials challenges for the participants, as it could be said that having a conversation with a patron about why a book stays on the shelf might be considered a challenge, as opposed to the ALA's definition of formal challenges to the collection.

Question 15 asked if respondent would be involved in any decision making about materials challenges at their library, and we sorted this data by library type (see Table 3).

The survey also focused on gathering data about the currency of book or materials challenges. As stated, ALA data indicates that Texas is the state that has the most banned and most book challenges. Fifty-two respondents indicated that their workplace has been subject to these material or book challenges in the past year (2022-2023), the majority of which happening at Public (30 respondents) and School (22 respondents) (see Table 4). A concerning number of academic librarians do not know or are unsure if their institutions have been subject to these challenges.

TABLE 3
Q15: Are you a person who would be involved with any decision-making about any materials challenges at your workplace? n = 155

	Public Library	Academic Library	Special Library	School Library	Archives/ Museums	Other	Total
Yes	52	16	3	33	1	1	**106**
Maybe	6	21	0	3	0	0	**30**
No	2	13	0	1	0	3	**19**
Total	**60**	**50**	**3**	**37**	**1**	**4**	**155**

TABLE 4
Q16: Has your library been subject to a materials or book challenge in the past year (2022-2023)? (n = 155)

	Public Library	Academic Library	Special Library	School Library	Archives/ Museums	Other	Total
Yes	30	6	0	22	1	1	**60**
Unsure/Don't Know	1	20	0	2	0	1	**24**
No	29	25	3	13	0	1	**71**
Total	**60**	**51**	**3**	**37**	**1**	**3**	**155**

Survey respondents were presented with a follow-up question about awareness of any book or materials challenges in the past five years (2018-2022). Most responses indicated that these challenges as happening at Public (22 respondents) and School (12 respondents) libraries (see Table 5). However, more than 50% of respondents noted that there were not as many challenges in the five years leading up to 2023 as there have been in 2023. An additional consideration for this data is respondents may be unaware of challenges that occur. Academic libraries are often larger than their public and school counterparts, and this may lead to siloed libraries where information does not travel as freely as it would in a smaller library. In the case of particularly sensitive information like a book or materials challenge, information may be kept within a smaller group and not made widely available to all library employees.

TABLE 5
Q17: Has your library been subject to a materials or book challenge in the 5 years prior to 2023? (2018-2022) (n = 155)

	Public Library	Academic Library	Special Library	School Library	Archives/ Museums	Other	Total
Yes	22	10	2	12	1	1	**48**
Unsure/Don't Know	5	29	0	8	0	2	**44**
No	33	11	1	17	0	1	**63**
Total	**60**	**50**	**3**	**37**	**1**	**4**	**155**

The survey then asked about the content area covered in the material or book that was challenged; multiple responses were allowed (see Table 6).

Most of the challenges were focused on LGBTQIA+ identities and issues, with a total of 54 respondents indicating that they had at least one challenge for this topic area. Also indicated were "Inappropriate/Pornographic." The authors of the survey included this as an option, as we know from the book bans happening, that many books which are LGBTQIA+ in their topics may be viewed by some members of the public as being inappropriate or pornographic (Faller, 2023). However, this is a broad speculation, and there could be items, like the Sarah J. Maas books, which sometimes get labeled as Young Adult, which may actually be more adult or emerging adult in their age groups.

We then created an Excel file with titles that library workers had said were challenged at their workplaces. The following books were mentioned more than once: *Gender Queer* (four

TABLE 6
Q18: If so, what was the content area of the materials (Select all that apply) (n = 175)

	Public Library	Academic Library	Special Library	School Library	Archives/ Museums	Other	Total
Racial identities and issues	8	2	1	11	0	1	**23**
LGBTQIA+ identities and issues	26	9	0	17	1	1	**54**
Women's identities and issues	2	1	0	2	0	1	**6**
Abortion	0	0	0	1	0	0	**1**
Inappropriate/ Pornographic	22	4	1	10	0	0	**37**
Religious/ Philosophy issues	6	3	1	1	0	0	**11**
Other	7	6	1	5	1	0	**20**
Don't know/ Unsure	1	19	0	2	0	1	**23**

times); *George/Melissa* (which changed its title in 2021); *It's Perfectly Normal; Rick; A is for Activist; Doing It; Flamer; Ghost Boys; Huckleberry Finn; Irreversible Damage; My Room is a Dungeon Rest Stop; Prince and Knight*; and "Sarah J. Maas books" twice as a whole, with 93 other titles or materials mentioned once. Other books have appeared perennially on the ALA's Most Banned Books lists over the past several years, including but not limited to: *The Bluest Eye*, by Toni Morrison; *The Handmaid's Tale*, by Margaret Atwood; *Fun Home*, by Alison Bechdel; and *I am Jazz*, by Jazz Jennings.

Many more of the titles listed by participants in our survey may have been challenged because of the list of books that Texas House and Senate members circulated amongst themselves in 2022. The list contained a list of 988 titles, some of which were not spelled correctly or had the wrong publication dates attached; the list was roundly criticized on social media (see Appendix B for the other titles mentioned in the survey responses). Additionally, instances of historical artifacts related to racist organizations being challenged were listed several times. As the authors of this survey know what those items are, we did not want to identify the collection specifically by name here as it could possibly be used to identify participants.

Participants were asked on a Likert scale if they replace items that cover LGBTQIA+ topics more frequently than other materials. With 144 responses, more than half of the respondents indicated that they neither agreed or disagreed with this statement, and 52 responses indicated that they somewhat or strongly disagreed with the statement. However, there are 16 responses indicating that yes, they might have to replace these items more frequently. As discussed, there might be a variety of reasons that books go missing, including the stealing of books by patrons. However, for the larger numbers, we speculate that libraries may not be collecting that type of information or could be reluctant to share that information with us. Library workers who took the survey may also not know what other departments are doing when it comes to replacing materials, so it is possible that this statement is vague.

Question 23 was an open-ended question asking library workers about the types of obstacles they might encounter while developing collections for their communities. Library workers indicated a variety of obstacles, but most often mentioned was budget or budgetary concerns. We saw several themes emerge from the comments, including the academic library workers responding "none" or that library workers are hampered by their ability to purchase titles, as they may have to only rely on purchasing those items which have a review. There

were also several insightful comments, including "how to meet the need of marginalized communities when we don't have a dialogue with that community," "lashback [sic] from community members, who don't even typically use the library, to protest materials they don't agree with," "lack of titles for marginalized communities for our specialized area," and "Balancing having a collection that 1. we can afford, 2. meets the needs of the people actually using the library and 3. meets the needs of the community members who are not using the library."

To discern how Texas library workers are familiar with current book and materials challenges that have been happening in public libraries over the past several years, we asked several questions. Our results indicate that most respondents were at least moderately to very familiar with these challenges (see Table 7).

TABLE 7
Q24: To what extent are you familiar with current book and materials challenges happening in public libraries over the past several years? (n = 139)

	Public Library	Academic	Special	School	Archives/ Museums	Other	Total
Extremely Familiar	23	7	1	8	0	0	**39**
Very Familiar	20	21	1	12	0	0	**54**
Moderately Familiar	10	12	0	11	1	2	**36**
Slightly Familiar	2	4	1	3	0	0	**10**
Not Familiar At All	0	0	0	0	0	0	**0**

Survey participants also indicated a strong level of agreement with the open-ended question about whether their institution can meet these book and materials challenges in ways that align with the professional values and codes of ethics from the American Library Association (see Table 8). There were also several comments indicating that respondents wished more libraries were proactive in their approach to these challenges, such as: "we haven't had any challenges reported to the front-line librarians, but I wish we were proactive in having a policy" and "we have leeway to expand our collections, but not too much" as commenter was warned that they don't want the library to "be in the news."

The survey also asked if any participants were concerned about any state or local legislation that would impact their ability to carry out their professional values and codes of ethics. Ninety-eight respondents indicated "yes" or emphatic "yes" (meaning exclamation points were included or capitalization of the word "yes"). Nine participants specifically mentioned HB900, as well as several other laws that Texas is considering or has already passed. HB900 is a law that will require book vendors to assign ratings to books based on depictions or references to sex.

TABLE 8
Q 25: Do you feel your institution is meeting book or materials challenges in ways that align with the professional values and code of ethics from the ALA? (n = 106)

	Coded responses
Yes	93
No	5
Mostly/Sometimes	5
Maybe/Unknown	3

The last question asked survey participants if there was anything else they would like us to know about what's happening at their institution related to anything we asked in the survey. There were many responses thanking us for the survey, as well as insightful comments about people's experiences. One wrote: "Fear is rampant. A secretary refused to place an approved book order because she was afraid it 'might' contain suspect books." Another wrote from an academic library point of view, stating that "we have the privilege of largely being shielded from book bans or challenges. That said, I'm very afraid for my sisters and brothers who work at public libraries. They are our real fighters for intellectual freedom." Others mentioned that the Texas Library Association should also be getting out accurate information to all library staff and teachers. One indicated that they did not have a policy in place before their first challenge but are currently drafting one. There was also fear of reprisal in the comments, especially from library boards or from outside actors. Another comment said: "We recently received our first book challenge in over 100 years of history at our institution. The challenger seems to think a book was inappropriate for young patrons, but we are a university library. It seems the challenger is playing a part in a culture war that is irrelevant to our context."

While it is tempting to believe librarians are monolithically opposed to censorship, survey results yielded diverse opinions among respondents. These opinions range from considerate criticism to personal attacks. In response to question 25—which asked respondents whether they felt their library was meeting challenges in ways that aligned with the American Library Association's professional values and code of ethics—several people responded with criticisms of the American Library Association. The mildest response being, "Yes. The ALA, on the other hand, could use some work." One of the more extreme responses declared, "The ALA is an extremist org pushing a one-sided agenda." Disagreements extended beyond criticisms of the American Library Association and ranged into sweeping political commentary and direct attacks against the authors and librarianship as a profession. In response to question 26 which asked about concerns regarding legislation impacting the ability to do one's job, one respondent commented, "Yes, but the liberal left has brought it upon themselves by pushing specific agendas and not listening to their communities."

The final question asked participants if there was anything else they would like the investigators to know, and it prompted both the most nuanced criticism and vehement hostility from some who took the survey. A helpful note about clarity was brought up in this question and is noted in our limitations; however, there were far more personal attacks than constructive criticism. One person simply said, "This is a terrible survey" while another went so far as to write, "Please drop the divisive political nonsense and actually try to help all of our patrons." Another said, "Frankly, the scrutiny is good as it forces us to articulate what we collect, how we collect, why we collect, and we would be better served if the ideological balance within the profession wasn't seen as so intolerably leftwing." The range of hostile responses may indicate a more intentional form of self-censorship among library professionals who do not agree with the left-leaning values that tend to be present in libraries, and the more measured, thoughtful responses indicate a lack of consensus on how to address censorship among librarians who agree it poses a threat.

Limitations

This research is limited to Texas library employees and is not reflective of the experiences of library workers nationwide or internationally. In addition to this limitation, we experienced

setbacks during the distribution of the study. Changes to the Texas Library Association listserv prevented some subscribers from receiving the survey email, so the survey was sent out through national listservs with a request that only library workers employed in Texas take the survey. Unfortunately, that request was overlooked, and we received responses from outside the state. One respondent also suggested that the authors should include definitions of challenges and bans in the survey, so results may be impacted by unclear vocabulary. Additionally, the authors limited the scope of the article to censorship of LGBTQIA+ materials, however, substantial evidence exists to support further research of censorship focusing on racism, antisemitism, and other subject matter.

Findings and Implications for Practice

Among many librarians, there is a growing sense of concern and unease. Public librarians and school librarians are especially concerned for the collections after Texas's legislative body passed HB900, a bill that requires book vendors to assign sexually explicit and sexually relevant rankings to items. As of the writing of this article in October 2023, HB900 is being challenged in the court system on its broad definitions and restriction of free speech. One commenter wrote for our survey that that the book vendors will "misrepresent appropriateness to cover their asses."

Among academic library workers specifically, many indicated they are under-prepared for the materials and books challenges. They also have a high rate of being unaware of challenge policies in their institutions, or they have no plans to develop them compared to their colleagues in public or school libraries. Comments from these librarians indicated that some do not feel worried about any possibility of challenges, since as an academic library, they have more "freedom" for their collection development than others. However, this is a false sense of security. As evidenced by Texas's recent attacks on academic freedom and DEI initiatives in universities and colleges, the freedom of speech that is so heavily referenced by the leaders of the state only includes them and what they have to say, and not the rest of us. While many in academic fields will acknowledge the need for social justice and cultural competencies, integrating such policies into library services continues to have difficulty gaining traction (Brink Drescher, 2022; Lumley, 2019; Leung & López-McKnight, 2020; Seale, 2020; Tewell, 2020). Such failures in developing critical policies to counter censorship will affect generations of Texans and their rights to read, and to read literature that is culturally and demographically relevant. As a university library, one does need to make sure to serve the community and the researchers at the institution. To support LGBTQIA+ students and represent the needs of the student body, academic libraries need collections that meet both academic needs and personal needs. Developing and maintaining collections for students from historically marginalized groups is part of the academic library's mission to serve the campus.

The many book and materials challenges happening in Texas libraries tend to be focused on LGBTQIA+ issues. When drafting that specific survey question, we hesitated to include the word "pornographic" because the word is frequently used by religious groups that do not agree with LGBTQIA+ materials or books to describe LGBTQIA+ collection items that are not actually pornographic. This conflation of LGBTQIA+ representations with "porn" is harmful for the LGBTQIA+ communities that our libraries serve. As evidenced by the specific titles that were discussed in Question 19, these titles do have LGBTQIA+ themes but are not exclusively related to these themes.

Further, self-censorship is still an issue in libraries. In 2016, the *School Library Journal* (*SLJ*)

published findings from their survey of school librarians, and more than nine out of ten librarians working in these spaces are not buying books that they could because they are worried about the potential "controversies" that the book may engender. Our survey indicates this is a continuing issue. Librarians are told that to stave off these controversies, they should be using book reviews that appear in places like *Booklist*, for example, to back their decisions. This can also be a limiting practice when it comes to adding to the collection, as sometimes those added items or new authors may not have any of these types of recommendations.

Library workers from all types of libraries could benefit from more training and sessions on developing a plan and hearing others' stories. As evidenced by the recent *School Library Journal* online seminar (Hickson & Jones, 2023), Texas is not alone in facing these book and materials challenges, however, Texas is also facing free speech and academic freedom repression from the state itself. Because of recent anti-academic freedom legislation and other attacks by the state of Texas, it would behoove academic librarians to become familiar with the challenges happening at public and school libraries and prepare their institutions for these situations. According to ALA's Office of Intellectual Freedom (OIF), in 2022, 52% of challenges are occurring at public libraries, 41% at school libraries, 10% in schools (general) and 1% at college libraries or other public institutions (2023). Even in 2016, librarians were raising the alarm about needing to have these policies written and structured so that libraries and library workers could be prepared (LaRue, 2016).

These best practices can include having a well-developed collection development policy, which incorporates a reconsideration policy that clearly states the procedures for a formal process to reconsider such materials. Steps to this policy should be outlined in exact steps, with a timeline, committee makeup contact points, and the information being used to make decisions. Policies should be explicit about requirements for a challenge, including that the material was read in full, was understood, and the points of contention were not copied and pasted from other places outside the filers own form, which can be easily checked by Googling the points of contention (Jensen, 2022). Patrons can be limited to how many challenges they can have active at once, and the item should remain in place until review is complete. Cost of a book challenge can also be included, which might include costs for acquiring materials so that each committee member may view it, time spent reading and accessing reviews of the material, and time spent in committee meetings (Jensen, 2022).

If the institution does not have a book reconsideration policy, ALA's OIF offers support and example policies, guiding documents, and other guides. This support can be found on their Collection Development and Reconsideration Toolkit site (ALA OIF Selection Toolkit, 2018) and the new edition of the *Intellectual Freedom Manual* (2021). If the library already has these procedures in place, it is good practice to share this information with new hires and provide training at regular intervals. Because freedom to read and academic freedom issues are not solely occurring in conservative states, library workers who work at all types of libraries in the United States should be prepared to face challenges. As evidenced by the rise of challenges across the country, documented by ALA and our own study, Texas leads the country in materials challenges, and Texas librarians of all types should be prepared.

Lastly, librarians can become more involved with the other organizations that will help them through the book or materials challenge. These organizations are also currently listed on the ALA's OIF site on Challenge Support. This includes organizations like The Freedom to Read Foundation, Unite Against Book Bans, Moveon.org's Banned Bookmobile Tour, and more.

Conclusion

We echo the call that we should be inviting our "students, colleagues, administrators, board members, parents and caregivers, school board members, and community members into deeper dialogue about our shared beliefs in providing all students with the resources an opportunities that they need in order to be successful in school, the community and life" (Hicks et al., 2022). Only by doing so will we as academic librarians and library workers, be better able to advocate for inclusive and diverse collections and support our colleagues at school and public libraries.

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Appendix A: Survey Questions

1. What is your age?
2. Are you currently working at a library or museum in Texas?
3. How long have you worked in your current position?
4. How long have you worked in libraries in your career?
5. Are you working for: Public library, academic library, special library, school library, archives and/or museums, other
6. If you work for an academic library, what kind of academic library do you work for?
7. Please share your job title (open ended)
8. In which of the following environments is your library located?
9. Are you considered to be a part of a historically marginalized group?
10. How would you describe your daily work duties? (open ended)
11. Which describes your collection development responsibilities? (May choose as many as apply): acquisitions, selectors, inventory, other, none
12. Are you aware of a materials/book challenge policy at your workplace?
13. Are you a person who would be involved with any decision-making about any materials challenges at your workplace?
14. Has your library been subject to a materials or book challenge in the past year (2022-2023)?
15. Has your library been subject to a materials or book challenge in the five years prior to 2023 (2018-2022)?
16. If so, what was the content area of the materials challenge consisted of (Select all that apply)?
17. Please share specific titles that were challenged at your library. (open ended)
18. Are you concerned about challenges to any of these content areas at your institution (Select all that apply)?
19. Do you find that you have to replace items that cover LGBTQIA+ topics more frequently than other materials? (strongly agree- strongly disagree 5 point Likert scale)
20. What goes into your decision-making process when adding materials to your collection (Please rank according 1st choice to 5th choice)?
21. What obstacles do you encounter while developing collections for your communities? (open ended)
22. To what extent are you familiar with current book and materials challenges happening in public libraries over the past several years? (extremely familiar – extremely unfamiliar 5-point Likert scale)
23. Do you feel your institution is meeting book or materials challenges in ways that align with the professional values and codes of ethics from the American Library Association? Link to ALA Professional Ethics Tools and Publications
24. Are you concerned about any state or local legislation that might impact your ability to carry out your professional values and codes of ethics?
25. What else would you like the investigators of this survey to know about what's happening at your institution regarding this topic?

Can AI Become an Information Literacy Ally? A Survey of Library Instructor Perspectives on ChatGPT

Melissa S. Del Castillo and Hope Y. Kelly

Libraries can play a role in navigating the Artificial Intelligence (AI) era by integrating these tools into information literacy (IL) programs. To implement generative AI tools like ChatGPT effectively, it is important to understand the attitudes of library professionals involved in IL instruction toward this tool and their intention to use it for instruction. This study explored perceptions of ChatGPT using survey data that included acceptance factors and potential uses derived from the emerging literature. While some librarians saw potential, others found it too unreliable to be useful; however, the vast majority imagined utilizing the tool in the future.

Introduction

Artificial intelligence (AI) encompasses diverse technologies that enable machines to simulate human cognitive capabilities. The subset of AI known as generative artificial intelligence (genAI) immerses itself in extensive datasets and learns from them. This learning enables it to create original content such as text, images, audio, and video based on its comprehension of the acquired information. GenAI, once limited to technology professionals and related industries, has now become ubiquitous across diverse sectors and systems. In 2015, OpenAI was established, marking the beginning of its foray into generative chat. Subsequently, in 2018, OpenAI unveiled its inaugural model, GPT-1, showcasing its breakthrough advancements in language generation (OpenAI, 2022). In late 2022, OpenAI launched a free version of ChatGPT, sparking widespread discussions and intense interest. GenAI relies on machine learning models trained on massive amounts of data, and the model learns the underlying patterns and relationships within the data (Lund & Wang, 2023). It uses these deep learning models to produce text and graphics that resemble human speech in response to a wide range of intricate stimuli, including questions, directions, and prompts (Lim et al., 2023). While traditional AI excels at data analysis and interpretation, generative AI thrives on data abundance to produce novel outputs inspired by learned patterns (Ayuya, 2024). The technology's potential and implications, both positive and negative, have made it a uniquely positioned innovation, igniting fascination and debate, ranging from enthusiasm to concerns about its societal impact.

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So why did ChatGPT inspire so much attention and conjecture? The technology's popularity can be attributed to a combination of potential benefits not seen in other large language learning models (LLM). ChatGPT is free, web-based, and easy to use, even without programming experience. ChatGPT's widespread presence in the media garnered significant attention, resulting in a deluge of news stories, opinions, and recommendations. This emerging phenomenon has also impacted academic libraries.

Literature Review

AI in Libraries

When OpenAI introduced its genAI application, ChatGPT, the implications for libraries were not immediately apparent. Libraries' use of artificial intelligence (AI) is well documented with environmental scans, systematic reviews, and case studies. In 2018, professors Woods and Evans conducted survey research and found that "librarians are not overly concerned about occupational attrition or the transformative effects of AI on the field of librarianship" (p. 29). Interestingly, they concluded that, compared to other professions, librarians were not meaningfully addressing AI in a field that has dealt with disruptive technologies more than most throughout the years (Wood & Evans, 2018). Then a shift in the perceived usefulness of AI in libraries occurred. Researchers Cox et al. (2019) also collected predictions through interviews regarding AI's potential effects on university libraries and the potentially disruptive nature of AI. Their goal was to determine how library directors felt about AI's possible effects on academic libraries and how that might affect their work. The research focused on how librarians' perceptions of AI influenced their interactions with students, the methods they employed for IL instruction using AI, and their approach to advocating for and integrating AI within the library (Cox et al., 2019). The advantages involve automated content discovery and the potential utilization of algorithms to scrutinize extensive content collections for intricate patterns and details that would be challenging for a human reader to uncover (Cox et al., 2019). Despite the potential of AI to enhance academic learning, the researchers asserted that libraries must address potential biases in the systems and define appropriate uses within educational institutions because of concerns about the difficulties surrounding its implementation, including protecting student privacy (Cox et al., 2019).

In 2020, Wheatley and Hervieux completed an environmental scan of current AI use in academic libraries. They found that there were almost no AI-focused projects or collaborations in university libraries and suggested that AI needed to be more present in the academic library setting. In 2021, Asemi et al. categorized research articles that discussed robots, AI, expert systems, and the roles that librarians play in different AI-related tasks. Their literature review aimed to identify the library activities that AI could help with in place of requiring the assistance of librarians. According to the review, information-seeking behaviors and information literacy that could be associated with AI included developing software programming to meet library needs, helping patrons find information that answers their questions, evaluating information once it has been found, and other digital literacy-related topics (Asemi et al., 2021). This article concluded that sophisticated library solutions could be utilized alone or in tandem with librarians to complete more difficult jobs. In 2021, Yoon et al. surveyed public and academic librarians and found that "a total of 21% of librarians responding reported that they are currently using AI and related technologies, with academic librarians (25%) reporting higher usage than public librarians (17%)" (p. 1899). Furthermore, they reported that

80% of respondents believed there was a good chance AI, and related technologies would be used in libraries in the next 30 years (Yoon et al. 2022). When reflecting on AI in libraries, Hussain (2023) explained that, while implementing AI will facilitate library operations and make libraries essential conduits for cutting-edge technologies, the success of this initiative will depend on librarian advocacy programs and a well-crafted policy that tackles both the advantages and disadvantages of AI in library services.

In a 2023 paper, Harisanty et al. investigated how AI could be used in libraries. They used PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to do an SLR (systematic literature review), which they then analyzed. They analyzed several areas related to the adoption of AI in libraries, including the benefits and impact of chatbots, the potential uses of smart technologies in libraries, and the possible advantages of incorporating robots into library services. They used the Diffusion of Innovation method to look at how quickly participating libraries have adopted AI and how widely these technologies are used in libraries. Harisanty et al. explained in their discussion that libraries need to be faster to adopt AI, even though it has been a buzzword in the field for over a decade (2023). There are many reasons for this hesitance, most of which center on librarians' lack of training in deploying the various technologies that are part of the "AI" designation and on the costs associated with programming the types of AI that could have the highest impact on libraries. The same study noted that there is a fear of AI replacing humans; many librarians express a fear of losing their jobs and their significance within the organization once they have programmed AI and established these systems to provide services to library users. Harisanty et al. concluded by suggesting that AI within libraries has not yet reached the "confirmation" stage of Diffusion of Innovation. The confirmation stage, the final stage in the model, follows "implementation," the stage at which most libraries are currently positioned, and it is not clear how long it will take for them to get there (Harisanty et al., 2023).

While there was much excitement in the literature about the potential benefits of AI for libraries and their users, there were equal measures of caution due to known issues related to generative AI. The core concerns lie in the black-box nature of genAI, the reliability and potential bias within its data sources, and the absence of clear information regarding the origin and credibility of the content it produces (Frederick, 2023). Some educators have suggested using LLMs as reference sources, but this might be considered unethical as the original creators of the data that the application was trained on are unknown and therefore cannot be given credit (Frederick, 2023). Similar controversy arose concerning Wikipedia's information reliability due to its open access authorship and unverified articles. As AI develops and our understanding of it grows, we will need to grapple with the perception, authenticity, and accuracy issues addressed in these readings.

Generative AI, ChatGPT, and Information Literacy

As genAI gained broader recognition and usage, academic libraries turned their attention to how applications could benefit students and information literacy (IL). *ACRL's Framework for Information Literacy for Higher Education* (2015) defines information literacy as a set of skills that work together to help us learn how to critically acquire new information, understand how information is made, use what we know to make new knowledge, and ethically participate in learning communities. Within this framework, the crucial notion of threshold concepts is introduced. These concepts are foundational to a discipline or knowledge domain; when

grasped by the learner, threshold concepts unlock new perspectives and deepen understanding, transforming the learner's comprehension of the subject matter (ACRL, 2015). So how can genAI be used to support these behaviors? Early proponents of AI integration thought it might provide chances to enhance students' information literacy, which would enhance IL instruction (Heck et al., 2019). Other suggested that ChatGPT could serve many purposes in academic research, including literature review assistance, text generation, data analysis, language translation, automated summarization, and question answering (Lund & Wang, 2023). Researchers Cox and Tzoc predicted a myriad of uses for ChatGPT in academic libraries for information literacy and digital literacy and suggested that the teaching of critical thinking skills will become paramount to the appropriate use of genAI tools (2023). Aptly, they suggest that libraries can leverage the disruptive aspect of generative chat tools by embracing their usage, evaluating their functionality, and beginning to develop services to support their use (Cox & Tzoc, 2023). The emergence of advanced generative text and image AI technologies consequentially reinforces the need for information and digital literacy skills. According to Cox and Tzoc (2023), librarians must increasingly prioritize fostering students' ability to critically evaluate AI-generated content because of the continuous advancements in these technologies. This includes determining whether a painting attributed to an artist is indeed their original work or an art piece created by artificial intelligence in a similar style, fact-checking information, and evaluating the credibility of responses provided by ChatGPT. Although distinguishing between a student's work and AI-generated content can be challenging, Cox & Tzoc suggested that equipping instructors and students with information literacy skills will enable them to make more informed assumptions through a critical evaluation of the material (2023). Adetayo and Oyeniyi suggest that generative AI has the potential to reinforce libraries as dynamic knowledge discovery centers, but also that balancing technology improvements with traditional librarian competence will be crucial for the future of reference and instruction services (2023). GenAI can provide a dynamic and responsive experience by engaging users with natural language while navigating the complexity of finding and evaluating information. However, Adetayo and Oyeniyi caution that libraries must put in place strong data protection measures, temper biases, and actively monitor AI-generated content to ensure the integrity of the information they provide (2023). According to researchers James and Filgo (2023), genAI can be leveraged in IL instruction to instruct students to "recognize that bias is everywhere and ChatGPT is getting information that exists out on the open web" (p. 335). They also noted that genAI can aid in "generating ways to break complex problems down" and even facilitate "growing in their information literacy abilities" by helping to "scaffold their skills, enabling them to accomplish this task more confidently in the future" (2023, p. 339). James and Filgo emphasized the need for collaboration with faculty partners and noted that instruction on AI tools should highlight their development, ethics, and potential benefits. They contend that using the lens of the *ACRL Framework for Information Literacy for Higher Education* in conjunction with GenAI tools could encourage librarians to explore new teaching methods, tools, and methods to aid students in a better understanding of information (2023). ChatGPT could help with research, source analysis, and reference citations during IL instruction. By "embracing ChatGPT, librarians empower students to become active and informed learners," which can "foster curiosity, critical thinking, and teamwork" (Russell, 2023).

Houston and Corrado state the obvious when they conclude that "instructors who simply ban students from using AI are likely fighting a losing battle" (2023, p. 85). Instead, they sug-

gested a collaboration between educators, students, and librarians to encourage information literacy and digital literacy which, they urged, is "needed increasingly in students' lives" (Houston & Corrado, 2023, p. 85). They argued that educators who "adapt their pedagogy to the implications of this AI" or who "choose to lean into its uses" can improve learning outcomes for their students while also illustrating how to interact with AI responsibly and strategically (Houston & Corrado, 2023, p. 85). Lo and Vitale surveyed 19 Association of Research Libraries member libraries. They found that AI was used in conjunction with information literacy skill building by identifying misinformation, encouraging critical thinking skills, and evaluating AI-generated content (2023). According to survey results, libraries could improve their IL initiatives by working with interdisciplinary partners, integrating AI literacy into broader information literacy, and assisting users in understanding and assessing AI-generated content (Lo & Vitale, 2023). Libraries could play a prominent role as research institutions in navigating the AI era. They could showcase the expertise of librarians in this field, develop new skills related to AI, provide staff training, and organize workshops on these topics.

Balancing Challenges and Benefits of Generative AI

The literature on generative AI includes a variety of perspectives and ideas about the importance of striking a balance between the benefits and challenges of using AI in education. According to Oyelude (2023), ChatGPT has been inappropriately utilized in academic settings for purposes such as cheating on exams, composing term papers and assignments, generating phishing emails, and fabricating scientific materials. Nonetheless, Oyelude suggested that ChatGPT could be advantageous in libraries for multiple purposes, including search and exploration, reference assistance, writing tasks, and instruction on IL and digital skills (2023). GenAI may facilitate the generation of ideas, streamline various aspects of the research process, and provide answers to inquiries. Researchers Dai et al. (2023) recommended that students critically assess ChatGPT outputs using their knowledge, expertise, and judgment. The authors emphasized that "epistemic agency," or the ability to "actively engage in knowledge construction, inquiry, and learning," is crucial for students to avoid biases in AI-generated content (Dai et al., 2023, p. 88). They also stressed the need for "adaptability and continuous learning" as essential skills for students as the "AI landscape is rapidly evolving and advancing" (2023, p. 88). Researchers Subaveerapandiyan et al. (2023) determined that AI-based models may "require significant human editing to produce high-quality text, and it is the responsibility of the researcher to ensure accuracy, coherence, and relevance" (p. 13). According to Chan (2023), providing support and education on AI literacy to teachers, staff, and students is needed to augment educator proficiency and confidence through appropriate training. Chan suggested that, in the next stages of generative AI adoption in education, it will be important to teach students how to use AI technologies, evaluate their use, and talk to people about ethics, the limits, applications, and affordances of AI, as well as how to evaluate its results (2023). Chan concluded that, to give students the tools they need to use AI technology honestly and ethically, they need to improve their critical thinking, digital literacy, information literacy, and professional ethics (2023).

In their SWOT analysis of ChatGPT, Farrokhnia et al. explored the contentious nature of this "AI tool that has sparked debates about its potential implications for education" (2023, p. 2). The authors noted strengths of ChatGPT, such as its ability to harness natural language processing capabilities, craft plausible responses, and refine itself over time. Farrokhnia et

al. indicated that, by providing personalized, real-time responses, ChatGPT could make information more accessible to support complex and individualized learning and effectively reduce the workload associated with teaching (2023). However, they also point to ChatGPT's weaknesses, such as a limited capacity for deep understanding and challenges in evaluating the quality of its responses, potential biases and discrimination, and a lack of higher-order thinking skills. The threats mentioned by Farrokhnia et al. encompass a limited comprehension of the situation, jeopardizing academic honesty, reinforcing inequality in education, promoting widespread plagiarism, and diminishing the ability to think critically.

Based on the literature cited above, most current research on libraries focuses on genAI in general rather than on a specific tool such as ChatGPT. The scarcity of available literature on the application of ChatGPT in libraries is likely attributed to its status as an emerging technology. What is apparent from the current literature is that genAI tools will likely continue to impact library professionals and their workflows. The literature suggests that, while ChatGPT has practical applications, its use must acknowledge implicit ethical and practical concerns. The data sets used to train ChatGPT lack transparency, making it challenging to ascertain the potential misinformation, inaccuracies, or biases reflected in its content (Price, 2023). To optimize the impact of genAI, as highlighted in the readings, it will be necessary to navigate the potential benefits while simultaneously confronting inherent challenges. This study aims to explore critical inquiries that have yet to be investigated in the existing literature, including the attitudes of library professionals engaged in IL instruction toward ChatGPT, their current and planned uses of this tool in IL instruction, and how issues associated with it affect their perception of its usefulness.

Methodology

Theoretical Model

The application of the Technology Acceptance Model (TAM) offers a structured framework for investigating the dynamics of librarian engagement with Chat GPT in the context of developing and delivering information literacy instruction. "Perceived usefulness" and "perceived ease of use" are factors that affect people's acceptance and use of technology, according to TAM, which has roots in the fields of psychology and information systems (Davis, 1989). In IL instruction, librarians serve as intermediaries between users and technological tools like Chat GPT, aiming to enhance information-seeking skills. Examining how librarians perceive the utility and ease of integration of Chat GPT into their instructional practices can shed light on the factors shaping their adoption behaviors. Factors such as perceived efficacy in addressing user inquiries, ease of incorporating Chat GPT into existing pedagogical methods, and confidence in leveraging its capabilities could significantly influence librarians' willingness to engage with this technology. Moreover, exploring the potential barriers, such as concerns regarding accuracy, privacy, or technological proficiency, can offer insight into the complexities of integrating AI-driven tools into information literacy programs. Applying TAM to the study of librarian engagement with Chat GPT elucidates the interplay between technological attributes and individual perceptions, thus contributing to an understanding of the adoption dynamics.

Instrument Development

The research team developed the instrument (see Appendix A) with two main sources of information: TAM items from previous studies (Granić & Marangunić, 2019) and the emerg-

ing literature on how ChatGPT was being considered for use in educational settings through the summer of 2023, with an emphasis on library skills and information literacy. Based on prior iterations of TAM as applied to instructional technology, the research team created and revised items collaboratively with the technology in question, namely ChatGPT. In this case, the constructs include ease of use, usefulness, attitude toward use, and behavioral intention to use. An example item regarding the usefulness construct reads, "Use of ChatGPT will improve academic productivity." The five-point scale for all items sought levels of agreement from "Strongly Disagree" to "Strongly Agree." TAM items indicated attitudes, whether an individual engaged with the tool or not; therefore, it did not offer a 'not applicable' type of selection. Content validity relied on the expertise of the research team, which practices and studies within the field of instructional librarianship. The research team drew additional items regarding current and potential usage from the literature available at the time (James & Filgo, 2023). The team collected participant information about what type of setting they worked in, the age or stage of their patrons/students, and educational attainment as well.

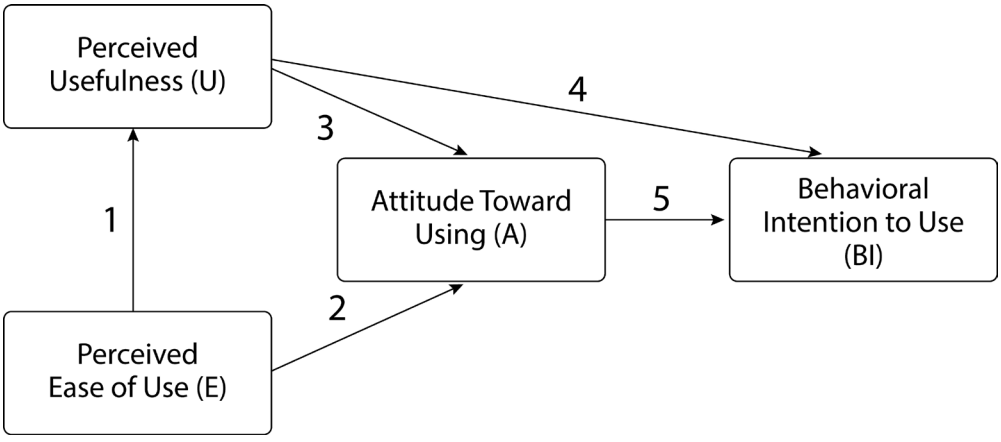
Data Collection

IRB offices at Florida International and Virginia Commonwealth Universities jointly approved the survey before data collection. The research team used a purposive sampling approach that required an affirmation that individuals engaged in information literacy instruction. Beyond these criteria, participants could be working in a variety of settings, including school, public, or academic libraries (see Appendix B). The team used an ALA platform, Connect, to solicit participation and follow-up email communications, as well as direct outreach to state-level associations to broaden participation. Results came from surveys completed from June 29 through September 28, 2023.

Analysis

The research team first conducted descriptive statistics and tests for reliability in SPSS. We developed composite scores for TAM constructs using SPSS and then used a Chi-square test to determine model fitness using Amos, in this case, whether the TAM model matched the expected distribution (see Figure 1). We could then examine the strength of the effects between variables in the model based on factor loadings that do not represent causality but relation-

FIGURE 1
TAM Model



ships. The expectation was that these variables would demonstrate positive relationships, which would allow us to evaluate the following hypothetical relationships:

1. Perceived ease of use (E) positively affects perceived usefulness (U).
2. Perceived ease of use (E) positively affects attitude toward using (A).
3. Perceived usefulness (U) positively affects attitude toward using (A).
4. Perceived usefulness (U) positively affects behavioral intention to use (BI).
5. Attitude toward using (A) positively affects behavioral intention to use (BI).

After completing the statistical analysis, we conducted a review of questions about how ChatGPT was being used, along with an open-ended question about other applications of the technology, to support interpretation.

Limitations

A Chi-square test assumes independent observations; however, within the context of TAM, the responses of individuals who share a profession may be correlated, violating that assumption. The Chi-square test also assumes linear relationships between variables. If the relationships between the TAM variables are non-linear or complex, it may not accurately capture the nature of these relationships. The depth and quantity of the open-ended question results were assumed not to be sufficient for a mixed methods approach but were leveraged in interpreting the statistical results.

Results

Participants

We collected data through an online form directed to library professionals via the American Library Association's Connect platform and email inquiries that stemmed from those communications. Although the intent was to find respondents from many different types of libraries, most participants came from academic libraries (86%). The remaining participants came from public libraries (7%), school libraries (5%), and other settings (2%). Respondents had a wide range of years in the profession, ranging from 0-2 (14%); 3-5 (16%); 6-10 (26%); 11-15 (19%); 16-20 (10%); and over 20 years (15%). The age ranges of respondents tracked similarly to those of the library workforce overall (Bureau of Labor Statistics, 2024). From 205 responses, 154 were complete and met the criteria for inclusion in the TAM analysis; 58 participants also contributed to open-ended questions. This sample size exceeded the needed responses for each TAM construct and the proposed methods. The nature of the open-ended question was to uncover other uses from the participants; it was not developed for, and thus was insufficient for, any qualitative analysis. We reviewed primarily to capture additional information that respondents wished to share on the topic that might aid interpretation of the survey results.

Model Fitness and TAM Constructs

With one degree of freedom and a probability level of .636, this model would be rejected if the Chi-square was less than .75 but greater than .5. We calculated the Chi-square at .225, so the model did not fit. With a lack of model fitness, we examined the factor loadings that contributed to this circumstance in terms of hypothetical relationships between the TAM constructs, although these results are simply descriptive considering the overall lack of model fitness. Table 1 shows the results related to the hypotheses, with factor loadings greater than .5 indicating a potential positive relationship (indicated in bold type).

TABLE 1
Factor Loadings Between TAM Constructs

TAM Constructs	Standardized Weight	Estimate	Error
E to U	.548	.609	.075
E to A	.068	.081	.075
U to A	.714	.760	.068
U to BI	.205	.248	.080
A to BI	.675	.767	.075

We turned to more granular items that led to the composite scores shifting to a more descriptive approach for our analysis. Table 2 includes the means and standard deviations for each TAM variable, as well as figures containing results from items for related TAM constructs using the same agreement scale across items.

TABLE 2
Descriptive Statistics for TAM Items

TAM Variable	Mean	Standard Deviation	TAM Variable	Mean	Standard Deviation
1.1	4.1494	.81475	3.1	3.4286	1.14251
1.2	3.5909	.98095	3.2	3.7078	.97636
1.3	3.3831	1.20021	3.3	3.2143	1.10237
2.1	3.4416	.97006	4.1	3.7792	1.06179
2.2	3.0325	1.01890	4.2	3.7013	1.31423
2.3	3.8506	.96868	4.3	4.0909	1.11651

FIGURE 2
Agreement on Ease of Use Items

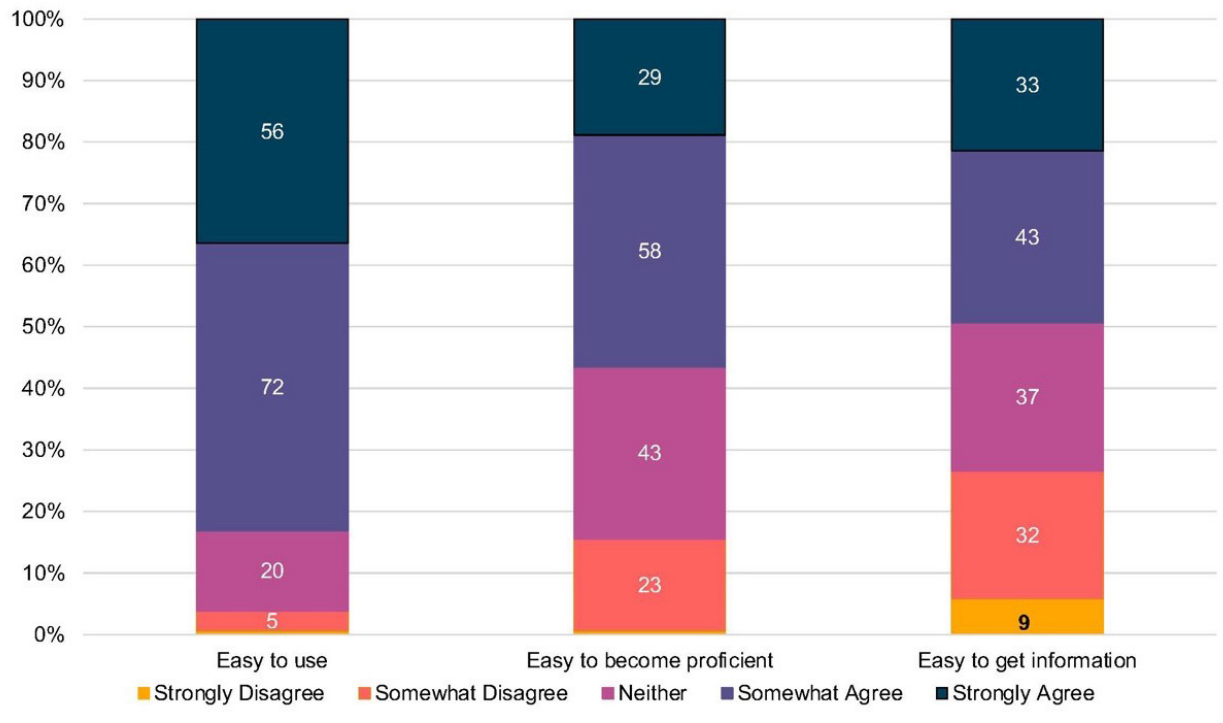


FIGURE 3
Agreement on Usefulness Items

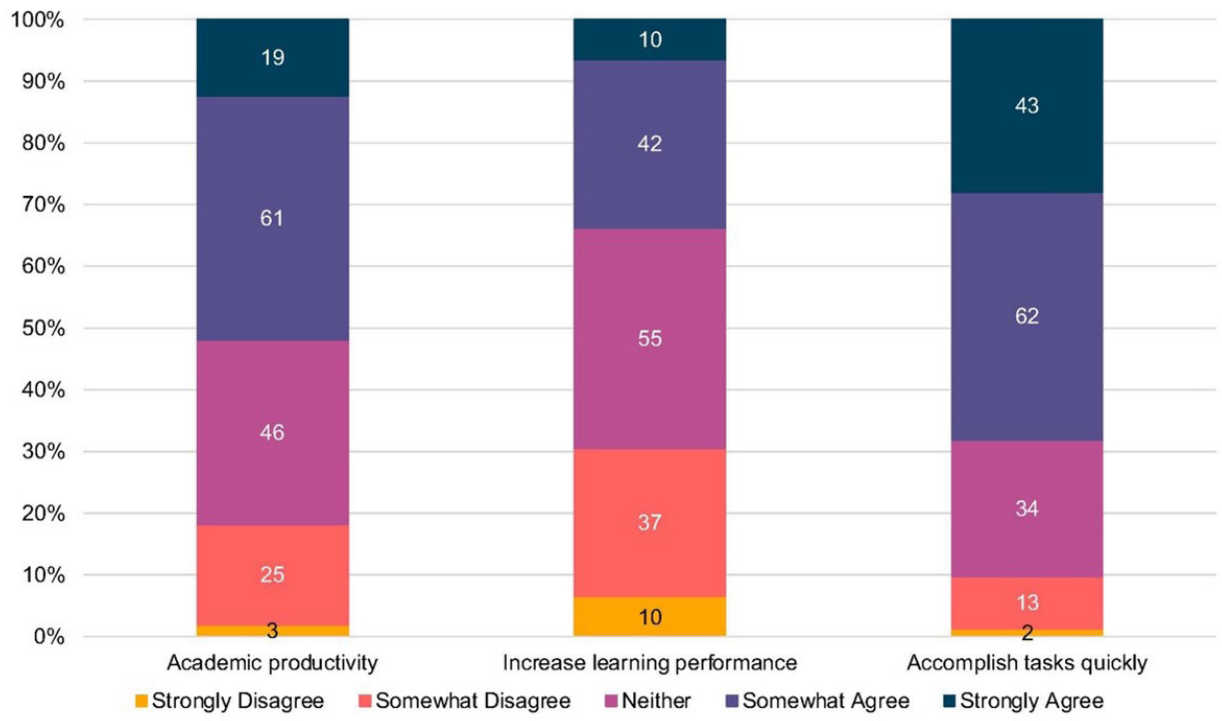


FIGURE 4
Agreement on Attitudes About Use

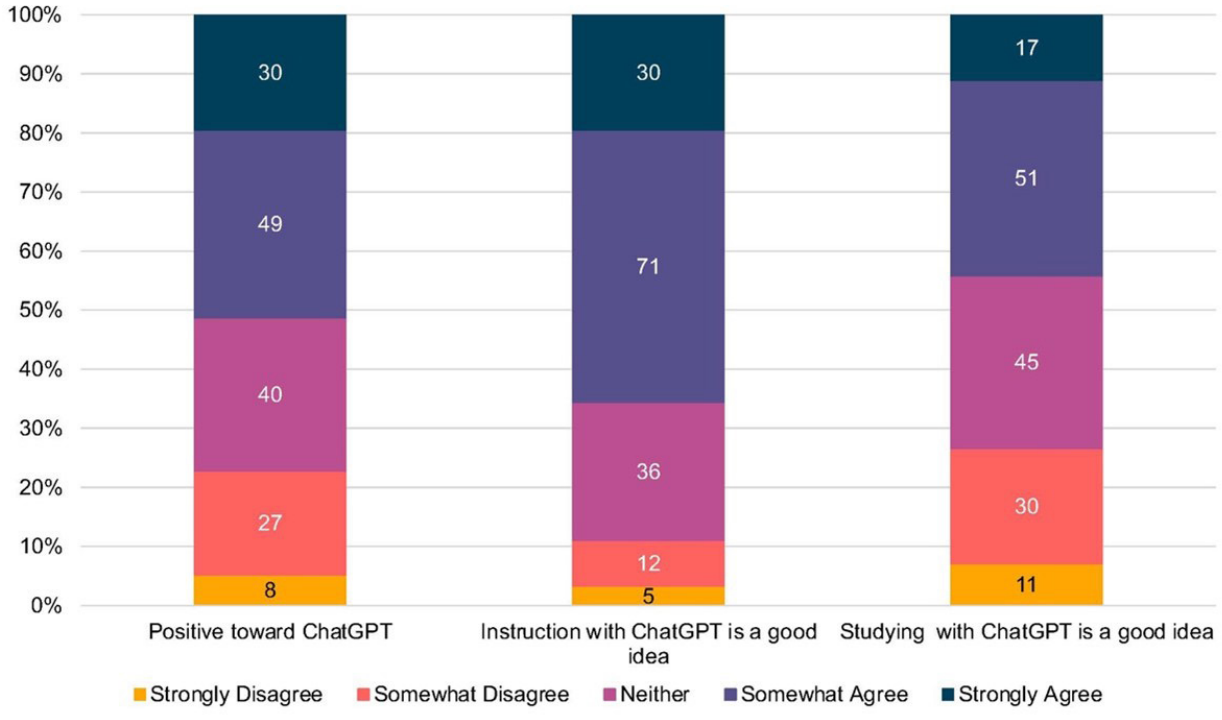
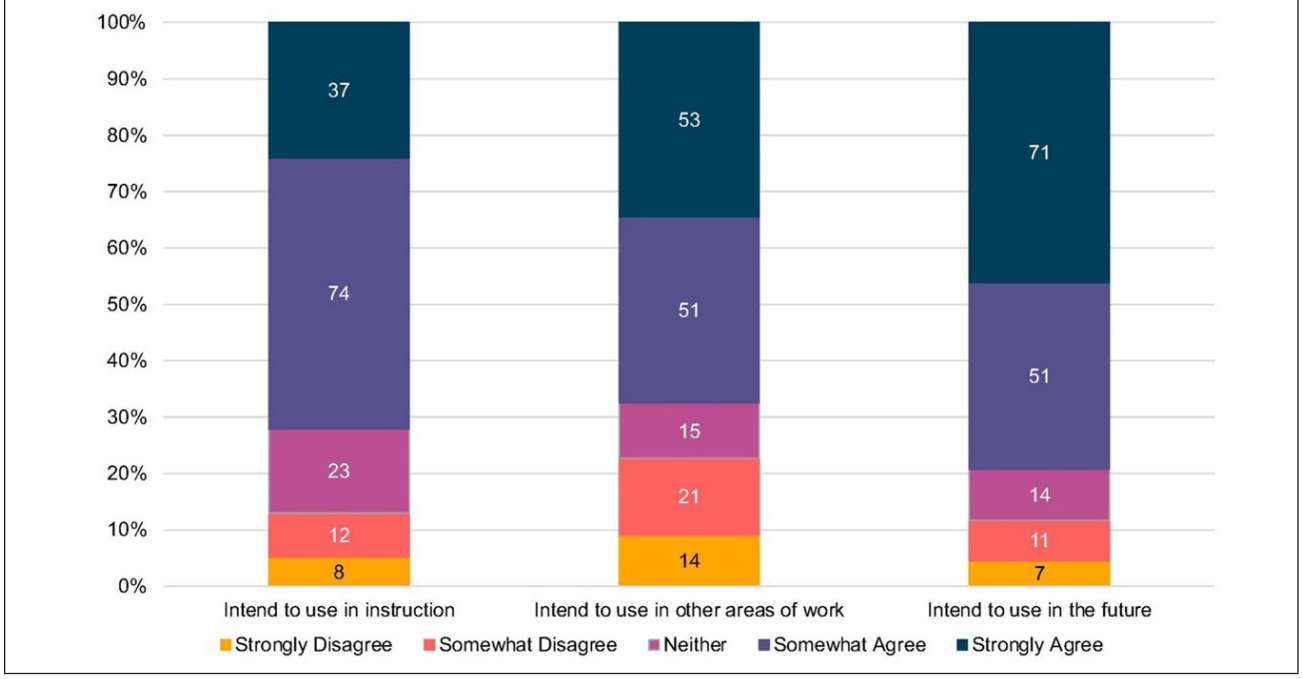


FIGURE 5
Agreement on Behavioral Intention to Use Items



Current Use and Potential Use

A series of use scenarios—gleaned from the literature through May 2023—were presented, along with a scale of how often or likely participants were to use ChatGPT as described at present and in the future. For current use, the scale ran from "Never" to "Always," (see Figure 6). For anticipated or future use, the scale is similarly represented, though it ranges from

FIGURE 6
Reported Current Uses

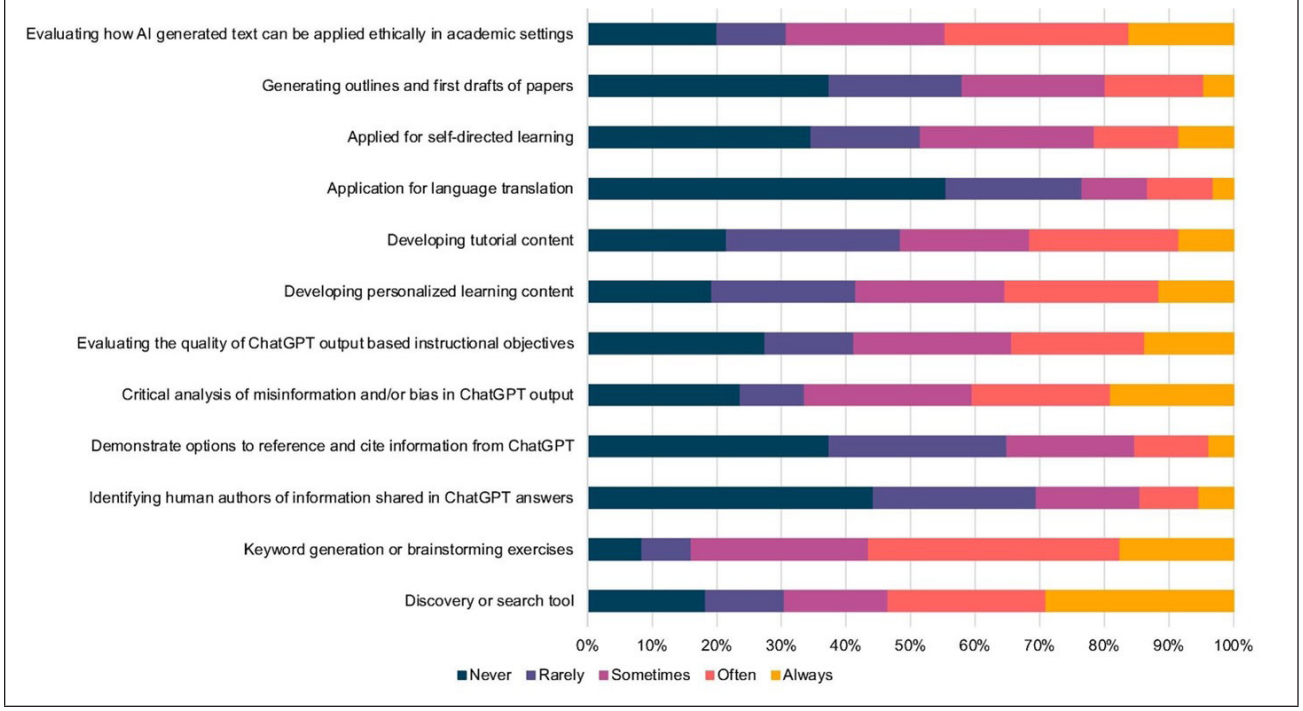
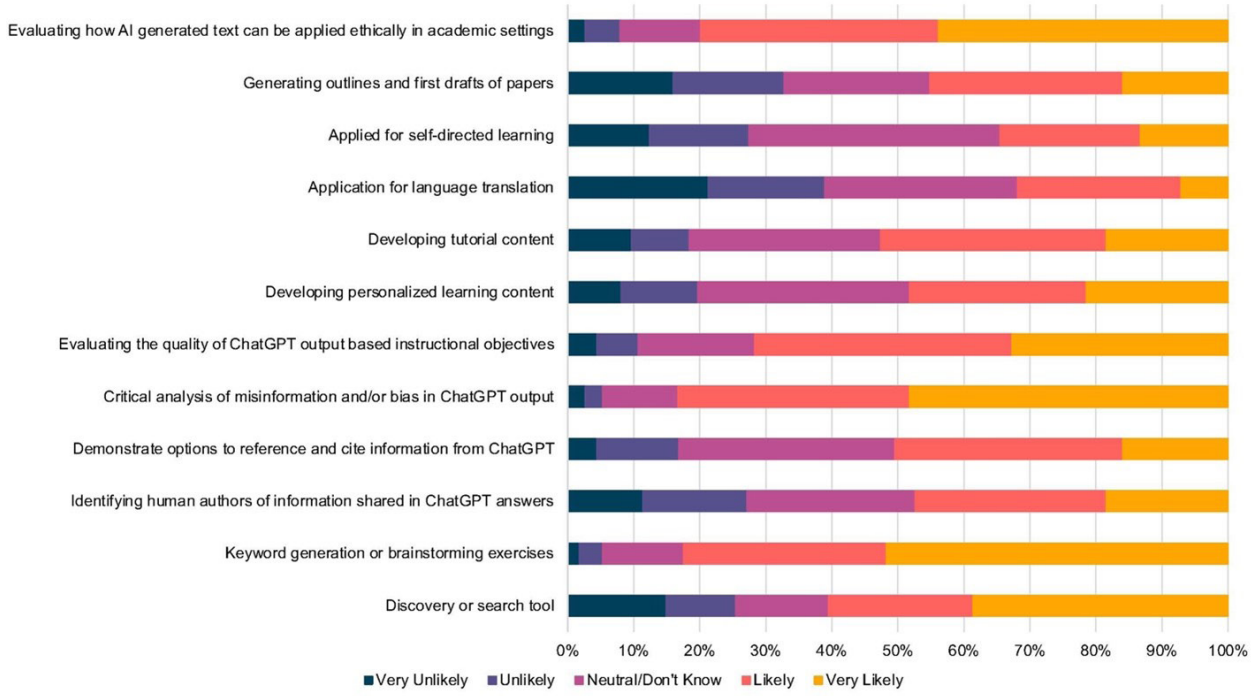


FIGURE 7
Likelihood of Future Use



"Very Unlikely" to "Very Likely." These items are simply reported by frequency tables that show current uses (see Figure 6) and potential uses (see Figure 7).

The responses indicate a varied use of ChatGPT in information literacy instruction. Some participants who provided answers to our single open-ended question about other uses have utilized ChatGPT for generating "Lorem Ipsum" text or examples during library tool demonstrations, and others have integrated it into LibGuides and professional education for library colleagues. Participants have explored the ethical aspects of AI, discussing copyrightable material, discerning authority in online sources, and addressing biases in research. Several respondents have engaged students in prompting ChatGPT for desired results, teaching them how to revise and cite the generated content to avoid plagiarism. Others have used ChatGPT for brainstorming research questions, creating outlines, writing assistance, and paraphrasing. Some have focused on the limitations of ChatGPT, cautioning against over-reliance and emphasizing the need for critical thinking in evaluating its output. One respondent noted that using ChatGPT during library sessions presented challenges with consistency in the generated content. Participants have incorporated ChatGPT into lesson planning, creating summaries of research articles, and even generating code for information literacy tutorials. The platform has been used to identify biases in research, address diversity, equity, and inclusion (DEI) issues related to algorithmic bias and discuss the impact of AI on future careers. Additionally, there are efforts to create resources, guides, and tutorials on interrogating ChatGPT for ethical considerations. Despite varied opinions on ChatGPT's suitability for certain tasks, there a common theme of incorporating critical thinking, skepticism, and evaluation skills into information literacy instruction emerged. Some participants are in the early stages of incorporating ChatGPT into their courses, while others actively discourage its use and advocate for careful consideration of its limitations.

Discussion

The lack of model fitness with TAM highlights the unique disruption this technology causes for those teaching information literacy. While most participants found the tool easy to use, there were conflicting opinions on its usefulness, as underscored in several comments. Many respondents were interested in the possibilities for developing engaging content, while others cautioned that it was an untrustworthy and unreliable tool. Further, even when participants saw the tool as useful, this did not consistently influence their behavioral intention to use it. Based on this scenario, a reasonable possibility is that other factors are motivating engagement with this tool. One clear motivation could be related to the pervasive usage of ChatGPT by students, faculty, and the wider networked world. For many library professionals in this study, engaging with ChatGPT is not so much about acceptance of the tool, as grudging acceptance of a rapid and pervasive change in the information landscape. The findings underscore the multifaceted nature of perceptions and behaviors toward ChatGPT in instructional settings. The diversity of perspectives highlights the need for ongoing dialogue and professional development to support the effective and ethical integration of genAI tools in library instruction.

The study also emphasizes the nascent evolution of participants' strategies to incorporate ChatGPT into information literacy instruction and related tasks. Respondents noted that ChatGPT was useful for both simple tasks, like generating placeholder text, to more complex discussions on AI ethics and addressing bias in the research process. Based on participants' input at the time of the study, the most regular engagement with the tool included using it as a discovery or search tool; evaluating how AI-generated text can be applied ethically in academic settings; critical analysis of misinformation and/or bias in ChatGPT output; and evaluating the quality of ChatGPT output based instructional objectives. It is intriguing that, despite the many cautions about the reliability of output, the most widely used function was as a search or discovery tool. It is also at odds with the main function of the tool, which is to generate unique yet predictive text, not to locate information or resources. Do information professionals imagine that there will be a shift from the search approach to a dialectical approach with generative chat in information-seeking behavior?

Conclusions

This study created a snapshot of the perceptions and utilization of ChatGPT amongst library professionals during its tumultuous initial year of being accessible to the public. Despite a lack of model fitness, the analysis revealed insights into the complex interplay of factors influencing the attitudes and adoption of AI tools in educational settings. As ChatGPT and similar technologies reach further into many aspects of content development and the research process, librarians are poised to develop and design resources both with and about genAI. As academic librarians critically evaluate the role it may play in informational literacy instruction, an emerging area of research will support those developing instructional content on the topic. Existing information literacy frameworks or fresh ideas for assessing information that is primarily machine-generated rather than human-generated may inform future research on this subject.

By fostering collaboration and sharing of teaching methods, instructional librarians can leverage the potential of tools like ChatGPT to enhance information literacy instruction while upholding principles of critical thinking, skepticism, and ethical practice. Using genAI in IL applications holds great promise for library professionals to reinforce an AI literacy

framework that includes the evaluation of nontraditional sources, problem-solving research inquiries, and AI safety awareness. More research is needed that evaluates existing methods of information evaluation against the output of genAI (Blechinger, 2023). A robust examination of prompt engineering techniques will allow us to refine this guidance and develop a deeper working knowledge of LLM systems in general (Lo, 2023). The convergence of these advised practices may lead to an AI literacy framework that can both empower students and support pedagogical strategies.

Acknowledgments

The authors express their gratitude to the information literacy instructors who took part in the survey for their valuable time and willingness to share their experiences. They would also like to thank participants who asked questions, gave feedback, and inspired discussion at our "ChatGPT is a Liar and Other Lessons Learned from Information Literacy Instructors" program session at LibLearnX 2024. The authors would also like to thank Elana Karshmer for her work in the early stages of the research process and for reviewing an early draft of the manuscript. The authors acknowledge the use of QuillBot (https://quillbot.com/) for syntax, spelling, grammar, and plagiarism checks at the drafting stage of the writing process and Google Gemini (https://gemini.google.com) for crafting the title of this paper.

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Appendix A. ChatGPT and Information Literacy

Informed Consent

Introduction

Melissa Del Castillo, Florida International University, and Hope Kelly, Virginia Commonwealth University, are conducting a research project on attitudes and applications of ChatGPT in information literacy instruction. You are invited to participate in a research study to better understand how library professionals use ChatGPT in information literacy instruction and their attitudes toward its use. Before you begin the survey, please read this Informed Consent Form carefully.

Purpose of the Study

The purpose of this study is to evaluate the current AI literacy levels of academic librarians and identify areas where further training and development may be needed. The findings will help inform the design of targeted professional development programs and contribute to the understanding of AI literacy in the library profession.

You are being asked to participate based on the following inclusion and exclusion criteria:

Inclusion criteria:

- Currently engaged in teaching information literacy in a library setting.
- Willing and able to provide informed consent for participation in the study.

The exclusion criteria are as follows:

- Library employees without work duties related to information literacy
- Individuals who are not currently library employees or who are not engaged in instructional activities.

Procedures

If you agree to participate in this study, you will be asked to complete an online survey that will take approximately 15-20 minutes.

Potential Risks and Discomforts

There are no known risks or discomforts associated with participating in this study. You are free to skip any questions you do not want to answer. While there are no direct benefits to you for participating in this study, your responses will help contribute to a better understanding of how library professionals use ChatGPT in conjunction with information literacy and will inform the development of relevant professional resources.

Confidentiality

Your responses will be anonymous, and no personally identifiable information will be collected. Data will be stored securely on password-protected devices or encrypted cloud storage services, with access limited to the research team. The results of this study will be reported in aggregate form, and no individual responses will be identifiable. The variables that will be collected relate to the attitudes of library professionals toward generative AI. No personally identifiable data will be collected. Your information collected for this project will not be used or shared for future research, even if we remove identifiable information like your name.

Voluntary Participation and Withdrawal

Your participation in this study is voluntary, and you may choose to withdraw at any time without any consequences.

Contact Information

If you have any questions or concerns about this study, please contact either of the principal investigators, Melissa Del Castillo at medelcas@fiu.edu or Hope Kelly at kellyh3@vcu.edu. If you have questions regarding your rights as a research participant, or about what you should do in case of any harm to you, or if you want to obtain information or offer input, please contact Florida International University's Office of Research Integrity (ORI) at (305) 348-2494 or research@fiu.edu.

Consent

By clicking "Agree to participate" below, you acknowledge that you have read and understood the information provided above, had an opportunity to ask questions, and voluntarily agree to participate. You may print a copy of this consent form for your records.

Purposive Filtering

This survey is intended to learn from library professionals with instructional responsibilities; is teaching information literacy a component of your regular work duties?

- Yes - Survey Continues
- No - Thank you for your interest. (Survey Closed)

TAM-Based items

- Scale: 5-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5)

Perceived ease of use of ChatGPT

1.1 ChatGPT is easy to use.
1.2 It is easy to become proficient at using ChatGPT.
1.3 It is easy to access information using ChatGPT.

Perceived usefulness of ChatGPT

2.1 Use of ChatGPT will improve academic productivity.
2.2 Use of ChatGPT will increase learning performance.
2.3 Use of ChatGPT allows one to accomplish tasks more quickly.

Attitudes towards ChatGPT

3.1 I am positive towards ChatGPT.
3.2 Instruction with ChatGPT is a good idea.
3.3 Studying with ChatGPT is a good idea.

Intention to use ChatGPT

4.1 I intend to use ChatGPT in my instruction.
4.2 I intend to use ChatGPT in other areas of my professional work.
4.3 I intend to use ChatGPT in the future.

Practical Application Items

Please rate your current use of the listed instructional applications.

- Scale for Actual use: 5-point Likert scale - Never, Rarely, Sometimes, Often, Always

Please rate your likelihood of using the listed instructional applications.

Scale 2 for Intended/potential use: 5-point Likert scale - Extremely Unlikely, Unlikely, Neutral/Don't know, Likely, Extremely Likely

Instructional Application Items

(tense for current/actual use)

- Discovery or search tool
- Keyword generation or brainstorming exercises
- Identifying human authors of information shared in ChatGPT answers
- Demonstrate options to reference and cite information from ChatGPT
- Critical analysis of misinformation and/or bias in Chat GPT output
- Evaluating the quality of Chat GPT output based instructional objectives
- Developing personalized learning content
- Developing tutorial content
- Application for language translation
- Applied for self-directed learning
- Generating outlines and first drafts of papers
- Evaluates how AI generated text can be applied ethically in academic settings

Other Uses

Tell us other ways you have leveraged Chat GPT for information literacy instruction.

- Optional, open-ended answers

Demographics & Library Context

- Select the option that best reflects your work setting.
- Public library
- K-12 school library/media center
- Academic library
- Other with text input

Personal Attributes

Age Ranges

- Standard, 18+

Degree attained

- Bachelors, masters, specialist, doctoral

How many years have you worked in library instruction?

- Less than 1 year
- 1–2 years
- 3–5 years

- 6–10 years
- 11–15 years
- 16–20 years
- Over 20 years

Job title

- Reference & Instruction
- School Library Media Specialist
- Academic Librarian (with varying ranks)
- Etc. (4-5 needed)
- Other (allow text input)

Teaching Context

- Please select the option that best align with your regular duties

Instructional Modality

- Face-to-face
- Online
- Blended (face-to-face and online)

Delivery (select all that apply)

- I teach information literacy in collaboration with teachers/professors of other subjects (embedded).
- I teach information literacy as part of library-based instruction (not in collaboration with others).
- I teach information literacy during consultations
- I teach information literacy during reference interactions

Audience (select all that apply)

- I teach elementary school students (grades K-5)
- I teach middle school students (grades 6-8)
- I teach high school students (grades 9-12)
- I teach undergraduate students
- I teach graduate students
- I teach adults or professionals

Appendix B. Recruitment: Listservs - ALA Connect

- American Association of School Librarians (AASL) Chapters Forum
- American Libraries Association (ALA) Members
- Association of College and Research Libraries (ACRL)
    - ACRL 21st Century Skills Discussion Group
    - ACRL Academic Library Services to Graduate Students Interest Group
    - ACRL Arts Section
    - ACRL CJCLS (Community and Junior College Libraries Section)
    - ACRL Contemplative Pedagogy Interest Group
    - ACRL Digital Badges Interest Group
    - ACRL Distance & Online Learning Section
    - ACRL Framework for Information Literacy for Higher Education
    - ACRL Instruction Section
    - ACRL Literatures in English Section
    - ACRL Members
    - ACRL Undergraduate Libraries Discussion Group
    - ACRL University Libraries Section
- Core: Leadership, Infrastructure, Futures Association
    - Core Artificial Intelligence and Machine Learning in Libraries Interest Group
    - Core Electronic Resources Interest Group
    - Core Instructional Technologies Interest Group
- Florida Association of College and Research Libraries (FACRL)
- Florida Association for Media in Education (FAME)
- Florida Libraries Association (FLA) Members
- Gen X Leadership and Networking
- Generative Artificial Intelligence, Reference, & Instruction Discussion Group (GAIR&I)
- Information Literacy Instruction in Academic Libraries
- Mindfulness and Contemplative Pedagogy in Libraries
- Progressive Librarians Guild (PLG)
- Radical Reference
- REFORMA
- RUSA (Reference and User Services Association)
    - Members
    - RUSA ETS (Emerging Technologies Section)
    - RUSA RSS (Reference Services Section)
    - RUSA RSS Research Help in Academic Libraries (RHAL) Discussion Group
- Virginia Association of School Librarians
- Virginia Library Association
- Virtual Reference & Emerging Technology eForum
- Young Adult Library Services Association (YALSA) YA Researchers

Effectiveness of Academic Library Research Guides for Building College Students' Information Literacy Skills: A Scoping Review

Erica Lynn DeFrain, Leslie Sult, and Nicole Pagowsky

Academic librarians invest significant time and effort in developing and maintaining research guides, yet the extent to which these tools effectively support college students' information literacy development remains uncertain. This scoping review aimed to comprehensively examine the existing literature on the effectiveness of academic library research guides in building students' information literacy skills. Following a rigorous screening process of 1,724 publications, 61 studies met the inclusion criteria for analysis. The review reveals that much of the research in this area stems from usability studies and exploratory single site case studies, many of which are characterized by limited methodological transparency and a lack of clearly defined outcomes related to student learning. These findings highlight both the growing interest in evaluating research guides and the need for more robust, outcome-based research that directly examines their impact on information literacy. This review provides a foundation for future studies that seek to assess and improve the pedagogical value of research guides in academic settings.

Introduction

The overwhelming information landscape has presented myriad challenges for society; information overload and increased exposure to mis- and dis-information have made it more important than ever to ensure that universities equip students with information literacy skills (IL). Working to ensure students information literacy has been a longtime concern for academic librarians; however, the need to develop effective IL practices and programs has become increasingly important due to a number of factors, including the damaging persistence of anti-intellectualism (Stewart, 2022); students' rapid evaluative heuristics, which often fail to detect misleading and false information (Wineburg et al., 2022); and increased pressures from employers to align new graduates' critical thinking abilities with workplace and workforce expectations (Head & Eisenberg, 2010; Taylor et al., 2022).

Over the past few decades, academic library research guides have become one of the most widely adopted devices through which librarians and other information professionals

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strive to teach students to navigate, select, locate, and use relevant sources of information for their academic and learning needs (Gardois et al., 2012; Hemmig, 2005; Hennesy & Adams, 2021). Also referred to as pathfinders, finding aids, subject guides, course guides, and topic guides (henceforth referred to as *guides*), guides are typically created for "a subject area, a type of user, a tool, or a class and contain links, videos, and handouts that are intended to help a user access a resource or learn something" (German et al., 2017, p. 162). Born from traditional bibliographic approaches to compiling information, in which librarians presented carefully curated topical collections to guide researchers (Dunsmore, 2002), the first guides were viewed as efforts towards scaling reference services, as "the librarian cannot always help and is not always asked" (Harbeson, 1972, p. 111). Today's guides continue to promote the idea of scalability of researcher support to an ostensibly global audience. In addition to their potential to educate en masse, numerous presumed benefits have helped to drive and sustain this approach, including beliefs that: guides attract a user base largely reluctant to seek help from librarians; they train students in fundamental information seeking skills and help introduce them to navigating academic libraries; and they assist in providing training in engaging with scholarly resources (Jackson & Stacy-Bates, 2016). Additionally, guides are considered an efficient and practical means for collaborating with instructors and appending IL into a course that might already be full of content (Kline et al., 2017).

Historically, research guides have enjoyed widespread acceptance as beneficial to learning (Dalton & Pan, 2014). Early proponents lauded their ability to teach information-seeking strategies and support disciplinary research practices, emphasizing the "immediate feedback" provided in real-world searches (Harbeson, 1972, p. 113). Despite this long-held belief in their effectiveness, critical research examining their actual impact lagged significantly. While extensive best practices literature exists on guide design (Goodsett, 2020), it's important to note that these recommendations lack strong underpinnings from actual research on student use. In 2005, Hemmig described a "continuity of pathfinder theory" upholding consistent design and evaluation criteria but could find "no published studies of actual research guide use, using actual research guide users" (p. 84).

This disconnect between assumptions about guide effectiveness, as well as the limited research available, calls for a more critical approach to understanding how students interact with research guides and how these interactions impact their learning. Without a comprehensive overview of guide effectiveness studies, assertions surrounding best practices cannot be validated as there is little to no consensus about content, audience, user engagement, placement, or the effectiveness of these guides for meeting established IL learning outcomes (Hemmig, 2005; J. Lee et al., 2021; Paschke-Wood et al., 2020). As we were unable to locate any other published or in-progress reviews on the effectiveness of guides for learning, the aim of this scoping review was to provide a comprehensive overview of the study design characteristics, evaluation and assessment methods, and a summary of findings regarding the effectiveness of guides in developing or improving the IL skills of college students. Our review was guided by the following research questions: (1) What are the IL-related learning outcomes that are associated with guides? (2) How are guides evaluated or assessed? and (3) What does the existing evidence say regarding their effectiveness at developing or improving the IL skills of college students?

Methods

This scoping review adheres to the Preferred Reporting Items for Systematic Reviews and

Meta-analysis extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018). Following the a priori protocol development guidance from members of the JBI Scoping Review Methodology Group (Peters et al., 2022), we preregistered our review protocol on November 3, 2022 with the Open Science Framework (DeFrain et al., 2022). In our review, we adhered to Arksey and O'Malley's (2005) five-stage framework for conducting a scoping study: research question identification; collection of relevant studies; study selection; data charting; and summarizing results.

Eligibility Criteria

The full inclusion and exclusion criteria (see Appendix A) were structured around the PICOS (Population, Intervention, Comparison, Outcomes, and Study Characteristics) framework (Thomas et al., 2023). Studies were eligible for inclusion if they were guided by an explicit or implied research question regarding the effectiveness of guides for developing college students' IL. Our definition of research was intentionally broad and inclusive: with no expectation that guides be examined in clinical or controlled environments, we sought to consider the full spectrum of "real-world practice" approaches characteristic of learning effectiveness studies (Singal et al., 2014, p. 1). Therefore, we considered any study whose author asserted the work as research or assessment. Our definition of IL was similarly broad. As we were interested in understanding the role that guides play in student learning, rather than a specific model of IL that was associated with any set of guides, we included conceptualizations of IL that were current or historic; individually, institutionally, or professionally generated; and locally or globally defined.

The study population must have included college students and gathered empirical data from or about this population as part of the study's assessment of research guide effectiveness. No publication date limiters were used, as pedagogical interest in and critiques of library guides go back decades (Vileno, 2007), and the purpose of guides as providing introductory academic research training has been an historically consistent objective (Dalton & Pan, 2014). Although the scalability of online dissemination can remove barriers to access, whether the content is delivered physically or virtually does not inherently alter its effectiveness for learning (Bowen, 2014); therefore, we included studies of online and print-based, guides. We did not actively limit results to any language, however the publications indexed within the included databases are predominately written in English, and, as we explain later, we ultimately made the decision to exclude the few non-English language studies found due to our own language limitations.

Information Sources

We searched five scholarly databases for comprehensive coverage and broad disciplinary representation: Academic Search Premier (EBSCO, multidisciplinary); APA PsycINFO (EBSCO, psychological and behavioral sciences); ERIC (ProQuest, educational research); LISTA (EBSCO, library and information science); Web of Science Social Sciences Citation Index (Clarivate). We searched three additional databases to capture relevant grey literature or in-progress works: Dissertations & Theses Abstracts & Indexes (ProQuest); EdArXiv; and LIS Scholarship Archive (LISSA). Full electronic search strategies for each of the included databases can be viewed in the preregistered protocol (DeFrain et al., 2022). The first search was conducted January 4, 2023, and rerun on January 12, 2024.

Selection of Sources

All citations were imported into Zotero, and citation metadata manually checked by a student research assistant for accuracy and completeness. Duplicates were automatically removed when imported into Covidence systematic review software, with an additional 19 manually removed during subsequent screening stages.

Two screeners worked in duplicate during both title and abstract and full text review stages applying the predetermined inclusion and exclusion criteria. Disagreements or discrepancies between screeners were resolved by discussion with the full research team. Once the initial corpus of literature was reviewed, the citations of included studies were scanned for additional literature that may not have been captured in the initial searches. Although this snowball search practice has been critiqued as a possible source of introduced bias (Vassar et al., 2016), when conducted carefully, hand searching can still be a valuable method for locating literature from outside a review's named databases (Craane et al., 2012). An additional 65 possible studies were discovered after duplicate studies were removed. These studies were then screened using the same multi-stage review techniques with two independent reviewers, adding a total of 12 studies into the final data extraction stage.

Data Charting Process

Through several iterations, we developed a data charting table in Covidence to gather study characteristics aligned with our original research questions. We used the Template for Intervention Description and Replication (TIDieR) checklist to improve completeness in the reporting of interventions in research studies (Hoffmann et al., 2014). Table 1 presents our approach to data charting and the features we considered necessary for identifying, summarizing, and mapping the outcomes, evidence, and effectiveness findings from the entire body of literature analyzed in this review. Two independent screeners charted study characteristics for each item meeting the inclusion criteria, and we worked as a team to resolve discrepancies.

Summary of Results

We followed a narrative review approach to describing and summarizing the body of studies in this review (Arksey & O'Malley, 2005). By gathering standard information from each individual study in a uniform way, we were able to identify dominant practices, novel approaches, and significant gaps. Our summary also includes basic numerical distributions of the studies aligned with our original research questions.

Critical Appraisal

As this scoping review sought to identify and compile the entire body of evaluation of guide literature, we did not critically appraise individual sources of evidence for methodological rigor nor evaluate claims. Because of this practice, it should not be assumed that the effectiveness findings reported by study authors can be understood as valid evidence towards the overall effectiveness of guides for learning.

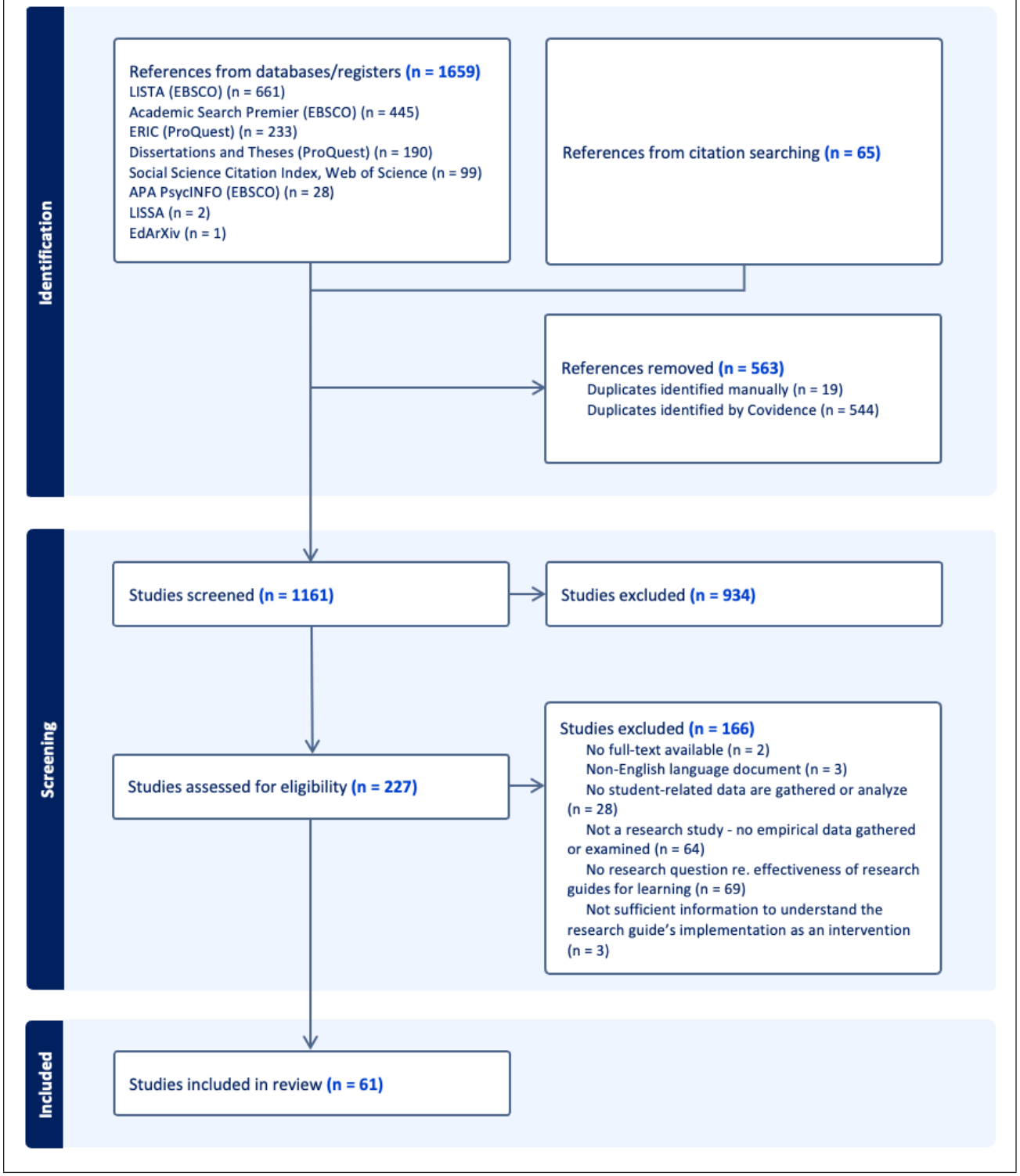
Results

The PRISMA flow diagram (see Figure 1) illustrates the search results and study selection process for each stage of screening. A total of 1,724 records were located through database and hand citation searching, 563 of which were identified as duplicates and removed. The review team screened titles and abstracts of 1,161 records, excluding 934 as irrelevant. During

TABLE 1
Explanation of Data Charting Process Aligned with Research Questions

Research Question	Field	Definition	Field input options
What are the IL-related learning outcomes associated with research guides?	Study purpose	Overall goal or reason for the study or publication	Open text
	Theory or framework	Knowledge systems or beliefs held by authors that assumed the validity of their study	Open text
	Outcomes measured	IL-related behaviors, attitudes, goals measured by authors	Open text
How are research guides evaluated or assessed?	Study location	Country where study was conducted	Open text
	Investigatory foci	Subject of study associating guides with learning	Usability; usage; satisfaction; utility; evidence of learning
	Guide integration	Type of guide and its use as intervention / within educational setting	Subject guide Course guide Embedded into LMS Supplemental to library instruction Print-based Other:
	(N) Population	Study sample / participant characteristics	Open text
	Data sources	Data gathered or provided as evidence; marked if used as pre/post	Survey; Web stats; Test performance; Usability testing; Assignment performance; Interviews; Citation analysis; Focus group; Content analysis Other:
	Study funding	Grants, awards, or internal funds supporting study	Yes; No; N/A
What does the existing evidence say regarding their effectiveness at developing or improving IL skills of college students?	Findings	Directionality of findings re. learning effectiveness	Positive; neutral; negative; mixed
	Explanation	Authors' explanation of findings	Open text
	Limitations	Study weaknesses per study authors	Open text

FIGURE 1
PRISMA Flow Diagram



full text screening, the study team sought 227 publications for consideration, although they were not able to retrieve the full text for two articles. The study team excluded an additional 164 studies during this stage, with 69 removed because no relevant research questions were expressed, and another 64 deemed as non-research. A total of 61 studies were determined as meeting the criteria for inclusion in the study (see Appendix B).

TABLE 2 Publication Characteristics of included Studies (N = 61)			
Publication decade	1970s	1	1.6%
	1980s	2	3.3%
	1990s	1	1.6%
	2000s	7	11.5%
	2010s	40	65.6%
	2020–January 2024	10	16.4%
Publication type	Journal article	58	95.1%
	Encyclopedia	1	1.6%
	Report	1	1.6%
	Thesis or dissertation	1	1.6%
Study location	Canada	5	8.2%
	Ireland	1	1.6%
	South Africa	3	4.9%
	Tanzania	1	1.6%
	United States	51	83.6%
	N/A	1	1.6%
Funding	Yes	4	6.6%
	N/A	57	93.4%

Characteristics of Sources of Evidence

As shown in Table 2, the full body of studies in the review were published between 1977 and 2023, with the first investigation of guides' helpfulness to its users reported within the entry of "Pathfinders, Library" in the *Encyclopedia of Library and Information Science* (Gardner, 1977). Most studies located were published since 2010, conducted in the United States, and published as journal articles. Only four studies attributed any source of funding in support of the research.

Study Purpose

Thirteen (21.3%) of the publications were conducted specifically to investigate guides as tools for learning (Bisalski et al., 2017; Bowen, 2014; Greenwell, 2016; Hansen, 2014; Hsieh et al., 2014; Lauseng et al., 2021; L. Lee et al., 2003; Y. Y. Lee & Lowe, 2018; Magi, 2003; Miner & Alexander, 2010; Paul et al., 2020; Pickens-French & Mcdonald, 2013; Rothstein, 1989; Stone et al., 2018). For most studies however, the research into the learning effectiveness of guides was a smaller component of a larger investigation. Several studies in this subset focused more broadly on the use and perceptions of guides as one element contributing to the overall value of the library and its services to its users (D. Becker et al., 2017; D. A. Becker et al., 2022; Bowen, 2012; Brewer et al., 2017; Carey et al., 2020; Chiware, 2014; Gerrish & Martin, 2023; Li, 2016; Mubofu & Malekani, 2021; Mussell & Croft, 2013; Tang & Tseng, 2014; Tomlin et al., 2017). Much of the remaining research focused more generally on the creation, use, usability, satisfaction, and preferences for guide design as a means of identifying and justifying their value as tools for learning.

Guiding Theories and Frameworks

Despite the importance of contextualizing and structuring research according to a methodological foundation, thirteen (21.3%) of the studies did not explicitly situate their examinations within any identifiable theory or guiding frameworks (Almeida & Tidal, 2017; Archer et al., 2009; Barker & Hoffman, 2021; D. Becker et al., 2017; Carey et al., 2020; Daly, 2010; Hsieh et al., 2014; Lauseng et al., 2021; Pickens-French & Mcdonald, 2013; Rafferty, 2013; Rothstein, 1989; Stone et al., 2018; Wharton & Pritchard, 2020). Though IL and other library generated professional standards are central factors in evaluating the effectiveness of library guides as learning tools, only seven (11.5%) of the studies explicitly discuss disciplinarily derived frameworks (D. A. Becker et al., 2022; Bowen, 2012; Gilman et al., 2017; Y. Y. Lee & Lowe, 2018; Little, 2010; Mubofu & Malekani, 2021; Scoulas, 2021). Of the studies published after the 2016 release of the *ACRL Information Literacy Framework*, only one (Y. Y. Lee & Lowe, 2018) discussed how the Framework was used to shape and inform their study.

Several theories and frameworks external to library science were referenced, echoing Lee and Lowe's (2018) drawing upon "decades of research on how students learn and impediments to learning … [especially] cognitive load theory, how students learn new ideas, and impediments to learning, specifically research anxiety" (p. 207). Eight (Bowen et al., 2018; Fagerheim et al., 2017; Gibbons, 2003; Lierman et al., 2019; Miles & Bergstrom, 2009; Mussell & Croft, 2013; Slemons, 2013; Thorngate & Hoden, 2017) focused on use and usability as a means of guiding their studies. This was seen in Thorngate and Hoden (2017), who wrote "If these guides are to support student learning well, it is critical that they provide an effective user experience" (p. 844). Several referenced constructivist theories (Bowen et al., 2018; Brewer et al., 2017; Hansen, 2014); three considered student mental models (Y. Y. Lee & Lowe, 2018; Leighton & May, 2013; Sinkinson et al., 2012); and two applied the Technology Acceptance Model (D. A. Becker et al., 2022; Sharrar, 2017). Six studies were informed by cognitive load theory (Baker, 2014; Bowen et al., 2018; Y. Y. Lee & Lowe, 2018; Metter & Willis, 1993; Miner & Alexander, 2010; Paul et al., 2020).

Outcomes Measured

Most of the studies measured outcomes regarding student satisfaction, preferences, engagement, and other affective states. Fifty-four (88.5%) of the 61 total studies measured such outcomes, 48 of which focused solely on these emotional outcomes. Forty-one (67.2%) included a question asking students whether they found guides helpful to their research needs. Fourteen (23.0%) studies explored knowledge and skills more directly related to IL outcomes (Archer et al., 2009; Bisalski et al., 2017; Bowen, 2014; Bowen et al., 2018; Greenwell, 2016; Hansen, 2014; Hsieh et al., 2014; Lauseng et al., 2021; L. Lee et al., 2003; Y. Y. Lee & Lowe, 2018; Miner & Alexander, 2010; Rafferty, 2013; Soskin & Eldblom, 1984; Stone et al., 2018). These studies generally sought to associate guide use with test performance and course grades, where outcomes included students' ability to find and use primary resources (Archer et al., 2009), students' self-reported skills on an exam (Bisalski et al., 2017), and knowledge checks testing students' advanced search techniques, such as understanding of Boolean searching (Bowen, 2014; Greenwell, 2016; Hsieh et al., 2014; Lauseng et al., 2021; L. Lee et al., 2003; Soskin & Eldblom, 1984).

At least one study reported challenges in setting measurable outcomes. Archer et al (2009) began their study as an evaluation of a guide's effectiveness for developing primary source research skills, but ultimately shifted when they struggled to operationalize relevant learning

outcomes: "As we interacted with the students and analyzed the results over the following months, it became clear that the most important outcome of the study was not so much what it told us about the effectiveness of the guide but rather how it helped clarify our understanding of what constitutes primary source literacy" (p. 411).

Investigatory Foci

We found that guide investigations could be characterized according to five central foci: usability (can students use the guides?); usage (do students use the guides?); satisfaction (do students like the guides?); utility (do students consider the guides useful?); and evidence of learning (are the guides effective tools for learning?). Though the latter two categories are most explicitly relevant to the scope of this review, the preceding foci were included when study authors directly tied approaches to findings associated with learning effectiveness. For example, Almeida and Tidal (2017) equated usability with learning by explicitly connecting "design features with cognitive practices" (p. 64); Barker and Hoffman (2021) concluded their review of the literature on usability studies by stating, "How well students are able to use guides has a direct impact on their ability to learn" (76); Smith (2007) suggested his meta-assessment model made it possible to associate web usage stats with student learning engagement, stating, "Ideally, it would be nice if everyone became fully engaged in each guide's content each time they visited, but the analysis model is still applicable even if they do not" (p. 91); and Hansen (2014) called students' perceptions "vital for developing [guides] into a successful learning tool" (p. 16).

Fourteen (23.0%) of the studies had a singular focus (Baker, 2014; Barker & Hoffman, 2021; Cobus-Kuo et al., 2013; Courtois et al., 2005; Dotson, 2021; Griffin & Taylor, 2018; Hsieh et al., 2014; Lierman et al., 2019; Miles & Bergstrom, 2009; Miller, 2014; Rafferty, 2013; Slemons, 2013; Soskin & Eldblom, 1984; Thorngate & Hoden, 2017), where the remainder employed two or more, including one that integrated all five (Bowen, 2014). Investigations focusing on guide usage were the most common (n = 37), followed by utility (n = 35), satisfaction (n = 31), usability (n = 17), and evidence of learning (n = 15).

Though mixing of investigatory foci is frequent throughout the included studies, not all areas of study are valued by all authors, and skepticism over other approaches is common. Griffin and Taylor (2018), for example, seem to argue against the controlled environment of usability studies in favor of gathering analytics data to understand "actual user patterns rather than idealized or hypothetical users" (p. 157). Similarly, Lee and Lowe (2018) criticized usability studies of guides as only gauging a student's ability to navigate, ignoring learning, writing:

> students can apply filters in databases for scholarly sources by checking a box without knowing what a scholarly source is … the findings of this study demonstrate that database navigability alone is not sufficient to improve students' learning experience as well as their interaction with the guide and resources linked from the guide (p. 223).

Library Guide Educational Integrations

Throughout the studies we reviewed, guides were introduced into educational settings in several ways. Most studies investigated guides created and delivered as online subject or course guides. Only five studies considered students' use of print-based guides, two of which (Magi, 2003; Mahaffy, 2012) looked at differences between the two mediums. The use of guides to

supplement library instruction was examined by several researchers (Archer et al., 2009; Hansen, 2014; Hsieh et al., 2014; L. Lee et al., 2003; Leighton & May, 2013; Magi, 2003; Miller, 2014; Olshausen, 2018; Rafferty, 2013; Soskin & Eldblom, 1984; Wharton & Pritchard, 2020). Soskin and Eldblom (1984) conducted a study to determine the effectiveness of a "Guide to Writing the Term Paper" sheet that was designed to "partially fulfill the bibliographic instructional objective [of helping] students locate sufficient quality information on their industries" (p.13). After concluding from their literature search that embedded guides were more likely to be used, Leighton and May (2013) developed a survey instrument to determine the helpfulness of a guide that was created to support students in a business class.

In tandem with research into the effectiveness of guides as supplements to instruction, many researchers devoted time to assessing how the placement of guides impacts students' learning and use of library resources. Several (Daly, 2010; Dotson, 2021; Gibbons, 2003; Gilman et al., 2017; Murphy & Black, 2013; Pickens-French & Mcdonald, 2013; Wharton & Pritchard, 2020) explore the function and effectiveness of guides that are embedded into campus learning management systems. In response to survey results suggesting library resources were underused, Duke University librarians looked to embedding guides into the campus learning management system in part because it "was obvious to librarians that students enrolled in courses with a research component could benefit from increased collaboration with librarians" (Daly, 2010, p. 209). In another study, Bowen (2012) uses responses to student survey data to argue that placing guides within the campus learning management system makes connections that "include improved learning and quality-of-research benefits to students, higher quality coursework turned in to instructors, and a maximized return on the investments a university makes in its library resources and its LMS" (p. 461).

Participants and Populations

Sample characteristics, including sample size, age, gender, or other demographic details of the participating populations in the studies, were inconsistently documented. Most offered only that their data came from "students," or perhaps a mix of groups, such as undergraduates, graduates, and distance students. Fifteen studies involved students enrolled in specific courses or programs (Baker, 2014; Brewer et al., 2017; Chiware, 2014; Hansen, 2014; Hsieh et al., 2014; L. Lee et al., 2003; Leighton & May, 2013; Magi, 2003; Miller, 2014; Miner & Alexander, 2010; Mussell & Croft, 2013; Rafferty, 2013; Soskin & Eldblom, 1984; Stone et al., 2018; Tang & Tseng, 2014). Additional demographic characteristics were equally underreported. Eight (D. A. Becker et al., 2022; Bisalski et al., 2017; Bowen, 2014; Carey et al., 2020; Greenwell, 2016; Mussell & Croft, 2013; Scoulas, 2021; Soskin & Eldblom, 1984) offered details on the gender makeup of their participants, and two offered sample information regarding race or ethnicity (Carey et al., 2020; Scoulas, 2021). Several others purposely opted not to gather such details deeming them irrelevant (Hansen, 2014; Lauseng et al., 2021; Y. Y. Lee & Lowe, 2018), and one did not summarize sample demographics despite gathering them via their survey (Thorngate & Hoden, 2017).

When sample sizes were provided, they ranged from five to 1,303, where smaller samples were more often from usability and qualitative studies involving interviews or focus groups, and larger samples captured data from student surveys. Eight of the 61 studies did not include any details on the number of participants in their study, however four of those were examinations of website traffic in which the populations were more generally associated with the college student population at large (Dotson, 2021; Griffin & Taylor, 2018; Slemons, 2013; Smith, 2007).

TABLE 3
Data Sources Identified in Library Guide Effectiveness Studies

Data source	Total studies	Single data source	Pre/Post
Survey	40	16	5
Website traffic	22	5	1
Test performance	17	2	5
Usability testing	10	5	1
Assignment performance	7	0	1
Interviews	6	1	0
Citation analysis	4	1	0
Focus group	4	0	0
Content analysis	1	0	0
Total	**111**	**30**	**13**

Note. Total studies value exceeds *N*=61 as most studies used multiple data sources

Data Sources

There were nine sources of data gathered or evaluated in the included studies (see Table 3). Most relied upon results from survey data (65.5%), either solely or in combination with other data sources. Quantitative data, such as from website traffic and test performance, were frequently considered alongside qualitative data from interviews and focus groups, indicating a preference towards data triangulation and mixed methods overall.

Data were primarily gathered using self-developed instruments, where only three studies reported on validation or reliability measures (Almeida & Tidal, 2017; Greenwell, 2016; Stone et al., 2018), and five referred to using commercially developed or standardized instruments (Bowen et al., 2018; Gilman et al., 2017; Murphy & Black, 2013; Sharrar, 2017; Tang & Tseng, 2014). Ten studies used data sources to gather pre/post measures (Archer et al., 2009; Barker & Hoffman, 2021; Bowen, 2014; Dalton & Pan, 2014; Hansen, 2014; Hsieh et al., 2014; L. Lee et al., 2003; Magi, 2003; Sinkinson et al., 2012; Stone et al., 2018).

TABLE 4
Overall Findings Relating to Guide Effectiveness

Directional	N
Positive	23 (37.7%)
Neutral	9 (14.8%)
Negative	3 (4.9%)
Mixed	26 (42.6%)
Total	**61**

Effectiveness Interpretations

Study authors' conclusions on the effectiveness of guides for learning varied, falling into four categories: positive, neutral, negative, or mixed (see Table 4). However, deciphering their interpretations of "effectiveness" proved challenging due to the broad scope of most investigations. Notably, few studies explicitly outlined their expectations for how guides might influence student learning, or the potential benefits they might offer. Only six studies (9.8%) employed a priori hypotheses or assumptions to guide their inquiry (Brewer et al., 2017; Greenwell, 2016; Griffin & Taylor, 2018; Hsieh et al., 2014; Magi, 2003; Sharrar, 2017), while the remainder lacked clear benchmarks against which to assess impact.

Of the 23 studies reporting positive findings, 17 were at least partially derived from affective measures gathered via student surveys (Baker, 2014; D. A. Becker et al., 2022; Bowen, 2012; Daly, 2010; Gardner, 1977; Gibbons, 2003; Gilman et al., 2017; Greenwell, 2016; Lauseng et al.,

2021; Li, 2016; Little, 2010; Metter & Willis, 1993; Paul et al., 2020; Rothstein, 1989; Sharrar, 2017; Stone et al., 2018; Wharton & Pritchard, 2020). When asked, students in these studies reported high satisfaction with guide content, or indicated that guides were helpful, relevant, or useful for their academic needs. In these studies, rates of satisfaction were resoundingly high. For example, Rothstein's (1989) study reported that 90% of the 77 survey respondents were satisfied with the research guides developed for their specific topics, and Daly's (2010) reported survey results found that "89 percent of the 106 respondents reported that course-specific guides were 'somewhat useful' or 'very useful' for their research" (p. 212). In Greenwell's (2016) study, the pre/post testing data yielded no significant differences, and these results were not considered in the discussion section. Rather, the author selected student survey results as evidence of guide effectiveness, where 83.9% of the 112 students surveyed reported that the guide was valuable and made it easier for them to locate resources for their assignments.

Not all studies of student perceptions reported such positive results, however (Courtois et al., 2005; Mubofu & Malekani, 2021; Mussell & Croft, 2013; Ouellelte, 2011; Pickens-French & Mcdonald, 2013; Scoulas, 2021). Courtois et al. (2005), for example, embedded a single question—"was this guide helpful?"—into all library guides for one semester. Of the 210 anonymous responses gathered, 52% rated guides as "Somewhat" to "Very Helpful," while 40% rated them as "Not Helpful" or "A Little Helpful." Some differentiation in satisfaction levels according to student characteristics were also revealed, such as in survey results from Scoulas (2021) suggesting that STEM students valued guides significantly less than non-STEM students, and nearly 70% of 33 distance students surveyed by Mubofu and Malekani (2021) study expressed feeling neutral or dissatisfied with research guides overall.

In examining the data presented regarding user perceptions, we found that across several studies, students frequently expressed high satisfaction with the guides while simultaneously indicating their own limited engagement with or need for them (Bisalski et al., 2017; Chiware, 2014; Leighton & May, 2013; Magi, 2003; Ouellelte, 2011; Rothstein, 1989; Sharrar, 2017; Tomlin et al., 2017). In Chiware's (2014) study, for example, though guide ratings were generally positive, a "significant number of students reported that they simply felt they did not need them" (p. 31). For example, Sharrar's (2017) summative usability study recorded the highest overall mean of 5.96 on a seven point Likert scale based on 47 undergraduate student survey responses to "It would be a wonderful idea for undergraduates to use library course pages," whereas questions regarding students' own intent to use guides received the lowest mean score of 4.49. Similarly, in Rothstein's (1989) survey, the students who responded negatively to research guides developed for them through a Term Paper Clinic still advocated for the service: "even those few students who had some doubts or denials about its value to themselves felt that the Clinic should be continued on behalf of others" (p. 279).

Usage reports led three study authors to reconsider the effectiveness and overall purpose of their guides (Griffin & Taylor, 2018; Mahaffy, 2012; Mussell & Croft, 2013). Despite early assumptions that student researchers were independently discovering and engaging with guide content, Griffin and Taylor (2018) failed to find evidence of this when exploring use. Interpreting high bounce rates as students hurrying to accomplish specific tasks, they advocated against "verbose, exhaustive library guides harkening back to the pathfinders of old" (p. 158). Four additional studies shared similar guidance in advocating against the type of pathfinder guides that point students towards lengthy lists of resources (Baker, 2014; Hansen, 2014; Hintz et al., 2010; Leighton & May, 2013). In Baker's (2014) comparative study of pathfinder guides

versus more instructional ones, they were surprised to find that most of the students enrolled in two First-Year Experience courses "reported a more positive learning experience with the tutorial guide and they were able to complete the assignment more quickly and with better results" (p. 114). This was echoed in Hintz et al.'s (2010) findings, where their survey of 55 students indicated "that they did not want to simply be pointed to a resource; they wanted to be told how best to make use of it" (p. 46).

Low evidence of use or engagement was not always interpreted as a need to change. Although the earliest study included in this review discontinued its pathfinder program due to low use (Gardner, 1977), several remained optimistic that an audience would be found (Dotson, 2021; Hsieh et al., 2014; Leighton & May, 2013; Magi, 2003; Miner & Alexander, 2010; Murphy & Black, 2013). This hope that students' curiosity could someday be piqued by guide content was relied upon as justification to continue investing tremendous amounts of time in developing and maintaining large numbers of guides. For example, despite much lower use than anticipated of the library guides created for 460 courses, Dotson (2021) concluded, "the hope is students will see specific items relevant to their course and explore more. They will use the ebooks and/or videos to better understand concepts and to explore search tools to go beyond these sources … Perhaps students will even bring up these sources with their instructor" (p. 256).

Students' struggle with or resistance to effectively using, applying, or transferring guide-based content was documented in several studies (Bisalski et al., 2017; Griffin & Taylor, 2018; Hansen, 2014; Magi, 2003; Mahaffy, 2012; Ouellelte, 2011; Soskin & Eldblom, 1984). In one study (Hansen, 2014), post-test data showed the international student participants were aware of expectations surrounding use of scholarly sources and could easily locate them, but unintuitive database interfaces and cumbersome search practices, including the use of Boolean logic, created frustrating barriers. In the words of one student, "'Before I [did] the library research, I only use the Google to do the research because it is very comfortable and convenient, especially using the Wikipedia. But after I knew how to use the library research, our teacher just ask us to use the library research and it's too difficult for an international student'" (p. 66). In another study, despite substantial time spent training students on course guide resources, when analyzing the number of sources cited in their subsequent research projects, Magi (2003) discovered that most students "relied heavily on free World Wide Web sites not demonstrated or recommended by the librarian" (p. 683). Soskin and Eldblom (1984), in their examination of 23 economics students' papers gathered during one fall semester, concluded that while the papers receiving higher scores cited more resources, it was the students' ability to analyze the information that influenced their overall score (p. 18). They also expressed concern that the students' skills transfer would be inhibited by the search strategies outlined in the guides, writing, "Although the flow-chart type of guide has the advantage of being economical of students' time, it has the potential disadvantage of prescribing a search strategy so narrow that generalization to future information seeking may be difficult" (p. 20).

Limitations Identified in the Studies

Twenty (32.8%) of the 61 studies did not identify any limitations or weaknesses regarding their research design or conduct that could influence outcomes and interpretations of the research. Thirty-three (54.1%) expressed limitations relating to the sample used for the research, with 16 studies identifying limitations due to a small participant pool (D. Becker et al., 2017; D. A.

Becker et al., 2022; Bisalski et al., 2017; Bowen, 2014; Bowen et al., 2018; Brewer et al., 2017; Carey et al., 2020; Cobus-Kuo et al., 2013; Gerrish & Martin, 2023; Hintz et al., 2010; Lauseng et al., 2021; L. Lee et al., 2003; Little, 2010; Mahaffy, 2012; Slemons, 2013; Stone et al., 2018). Other limitations included experimenter effect (Lierman et al., 2019), poor study design (Courtois et al., 2005), participants failing to follow instructions (Hsieh et al., 2014), and results being non-generalizable due to several circumstances (Bowen, 2014; Mubofu & Malekani, 2021; Ouellelte, 2011; Rothstein, 1989; Thorngate & Hoden, 2017).

Discussion

What are the IL Related Learning Outcomes Associated with Guides?

When we began this study, we expected that most learning outcomes associated with guides would be directly aligned with guide objectives, and therefore reflect traditional IL behaviors, skills, and dispositions around information acquisition and use. For example, for subject guides introducing students to disciplinary research practices, we expected to see learning outcomes surrounding dispositional knowledge acquisition. For course guides created to support completion of research assignments, we anticipated learning outcomes indicating how well guides assisted students in this work, including details on specific resources and strategies. While a smaller but noteworthy group of studies did present learning outcomes on knowledge and skills development related to IL, the majority focused instead on student satisfaction, preferences, and engagement.

Although understanding students' experiences remains crucial, it should be complemented by assessments of how guides translate into tangible learning outcomes more directly relevant to learning goals of guide creators. This could involve incorporating IL frameworks, utilizing learning objectives aligned with specific courses, or employing knowledge-based assessments beyond simple satisfaction surveys. That nearly a quarter of studies lack an explicit theoretical foundation—and even fewer point to professional frameworks such as the *ACRL Information Literacy Framework*—is striking, and points to the difficulties practitioners continue to face in trying to apply and assess IL concepts overall. Ultimately, a richer understanding of guides' influence on both immediate user experiences and long-term learning can be achieved through a more nuanced approach to outcome evaluation, embracing both affective and knowledge-based measures.

How are Guides Evaluated and Assessed?

There is no one way to evaluate learning, and the broad spectrum of approaches to guide assessment featured in this review reflects that. For the most part, guide evaluations are exploratory and open-ended. While study authors value mixed methods, often triangulating qualitative student feedback with quantitative website traffic statistics, very few control groups or baseline measures are used as comparators. Data are most often gathered to help practitioners quickly assess guide use and usefulness to students, where data are used to identify areas needing improvement. As such, evaluation practices are most often quick and simple, and rely on data that are easy to access, obtain, and understand: Surveys capture learner preferences and attitudes, web statistics reveal use and interaction, and usability observations are largely used to refine guide design. That most studies were published 2010 and later aligns with the transition to online technologies, including the 2007 release of SpringShare's LibGuides platform (Lilly, 2022). Where assessing use of physical pathfinders was limited to

observational and circulation data, access to web traffic data presented easy access to gauge site visits, resource selection, and user engagement.

Of note is that guide evaluation often does not require participation or support from course instructors. This is a pattern that is seen in the practice and implementation of guides within educational settings in these studies overall: although several studies provide details demonstrating highly participatory collaborations with course instructors, most of the studies indicate practices that occur with little to no instructor support or even awareness of the study. Though we did not gather enough information from the studies during our charting to fully characterize the nature and depth of librarian/instructor partnerships, the invisibility of guide assessment paints an uncomfortable picture that also keeps librarians at an arm's length from data that could otherwise be used to measure more higher order thinking skills.

Given the small number of studies that identified any source of funding, it's likely that this lack of financial support signals other resource barriers inhibiting more rigorous investigations. This is not a limitation unique to studies of library guides, but rather a common barrier experienced by librarian practitioners (Clapton, 2010; Smigielski et al., 2014). In Oakleaf's (2010) critique of library assessment research that formed the basis of the *Value of Academic Libraries* project, she acknowledged that while conducting rigorous research is out of reach for many practitioners, rigorous assessment is still critical and "should be well planned, be based on clear outcomes …, and use appropriate methods" (p. 31). Assessment activities are clearly valued within the profession, yet without funds, time, resources, and methodological training, it is difficult to conduct this work. Even a small amount of funding could help offset barriers to conducting research aimed at enhancing pedagogical successes.

What Does the Evidence Say?

This scoping review paints a complex picture of the effectiveness of library research guides in supporting student learning. While a significant number of studies highlight positive user perceptions, with students expressing satisfaction and finding guides helpful or relevant, the interpretation of "effectiveness" remains ambiguous due to the lack of clearly defined expectations or benchmarks for impact assessment. Notably, only a small portion of the studies employed specific hypotheses or assumptions, leaving the majority without clear measures to evaluate the guides' influence. This ambiguity is further compounded by the fact that very few study authors revealed limitations affecting their studies.

Though guide evaluations are primarily conducted to understand students' learning experiences in highly specific circumstances, effectiveness findings are often shared in ways that suggest broad applicability. Unfortunately, underreporting of sample demographics and study conditions poses a significant challenge to the robustness and generalizability of these studies. Without details on the participants in the study, it becomes difficult to understand whether the findings are being associated with all student populations or only specific subgroups, such as first-year undergraduates or graduate students. Without this crucial information, the findings remain incomplete and their applicability uncertain. To understand the impact of guides, researchers must strive for more comprehensive reporting of sample demographics, allowing for more nuanced interpretations and targeted interventions to cater to the diverse needs of student learners.

Limitations

Although we did not exclude non-English language publications in our search queries, our search terms and the sources of information searched disproportionately privileged English publications. While two non-English language documents provided abstracts in English which we identified as potentially relevant, due to our research team's own language limitations we made the decision to exclude these articles rather than pursue translation services. We did not want to misrepresent this study's scope given our own capabilities and the vastly incomplete representation of global literature that could therefore be discovered or considered. Additional limitations stem from the nature of scoping review methods, especially the possibility that relevant publications were possibly missed or omitted, and that critical appraisal of studies and more focused analysis of study findings are necessary to understand the effectiveness of guides for learning.

Future Directions

Focused Assessment of Learning Outcomes

While it is evident from these studies that guides are used to scale, supplement, and even substitute for librarian instruction, it is unclear what learning outcomes are best supported through these tools. Many studies in this review gathered students' feedback regarding guide helpfulness and satisfaction but given how individualized the guides are in these studies, more work is needed to determine *what* is or is not particularly helpful or satisfying about guides. Without in-depth exploration, it is challenging to understand what elements of research guides are especially beneficial in most contexts. If a student found a guide helpful, what exactly was helpful? If students report being satisfied with a library guide that was created with an instructional goal of increasing students' critical evaluation skills, is their satisfaction enough to conclude that the goal was achieved?

Interrogation of What Constitutes Best Practices

Without clarity, assertions surrounding best practices cannot be validated as there is little to no consensus regarding the effectiveness of these guides for meeting their established learning outcomes. Though we emphasize the need for improved assessment practices and greater attention to the use and impact of learning outcomes in this work, caution is also needed against developing cultures of bean counting, self-surveillance, and perpetual audit. Profession-wide decreed value agendas turn our energy toward anxiously, and often individually, demonstrating value rather than collectively contributing to student learning and uplifting librarian labor (Pagowsky, 2021). Nicholson provides an astute critique of value agendas in librarianship, in stating that "Audit culture creates a misalignment or a gap between our aspirations and our approaches. For example, we continue to rely heavily on quantitative methods, even when these may not be the most appropriate, because they are the most expedient" (2017, p. 17). Instead, Nicholson encourages library professionals to spend "more time inquiring into how students are learning and changing as a result of the time they spend with us and less into their customer satisfaction with these interactions" (2017, p. 19).

Deeper Examination of the Role of Guide Integration in Educational Settings

While this review did identify how guides were integrated—such as those embedded within learning management systems or used as supplemental to librarian instruction—it did not examine the relationship between educational integration and learning effectiveness. While

guides do offer libraries value in terms of scaling and reach, future research should focus on understanding what the limitations are regarding guides as standalone learning tools and whether or in which circumstances librarian instructional presence makes a difference.

Conclusions

The findings from this scoping review of guide effectiveness studies underscores the enormous presence these tools continue to have within academic libraries. The broad range of instructional applications, subjects covered, content included, and design features tested reveals the many, and varied, ways that practitioners have relied upon these guides in their teaching. The data sources relied upon in these studies indicate a valuing of student perspectives and experiences but restrict much of what we can know regarding the effectiveness of guides for deeper learning. More work is needed to identify and understand the factors contributing to students' learning, especially regarding specific populations and user groups and their engagement with and application of the information provided within the guides.

Funding

This project was funded by the University of Nebraska Foundation Layman New Directions award.

Acknowledgements

The authors would like to especially thank: the Evidence Synthesis Institute for giving us inspiration and methodological facility; the ACRL Evidence Synthesis Methods Interest Group for pairing us with Amy Riegelman who mentored us through the project's framework development; our undergraduate student intern, Cecan Porter, for her tireless efforts, enthusiasm for learning, and impeccable attention to detail throughout several stages of the review; the ACRL Education and Behavioral Sciences Section Virtual Research Forum for giving us an opportunity to share our process and progress to a national audience; Fernando Rios, Leslie Delserone, and Joan Konecky, for providing guidance in support of our protocol registration; and Amy Riegelman, Margy MacMillan, and Elizabeth Kline for their expert review of our article draft.

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Appendix A

Eligibility Criteria

Include:

1. Study includes an explicit or implied research question regarding the effectiveness of academic library research guides for college student learning.
2. The research guide must have been directly developed or compiled by an academic librarian or under the oversight of an academic library program or initiative.
3. Empirical data must have been gathered as part of the study's assessment of research guide efficacy or effectiveness.
4. The study population must include college students and provide learning outcomes-related data drawn from or about this population.
5. We are interested in all studies regardless of publication date.
6. It includes explicit or implied learning outcomes relating to any model or operationalization of information literacy.
7. There are no limitations on study design or study type. Study types will include experimental and observational (quasi-experimental, observational, case studies, non-quasi-experimental survey-based) primary studies. These can include peer reviewed articles and high-quality grey literature (e.g., dissertations, white papers, reports, conference proceedings, posters);
8. We will not actively limit results to any language.

Exclude:

1. A research guide cannot be identified as the primary intervention. Excluded from this study would be those in which a research guide is implemented or assessed as part of a broader suite of educational offerings, and the impact of the guide therefore cannot be understood.
2. Excluded from this review are studies investigating the usability or user experience of research guides as related to their functional design, in which no measures relating to student learning are provided.
3. No student-related data are gathered or analyzed. Excluded from this review are studies in which librarians or instructors comprise the sample population and student data were not gathered or assessed.
4. Non-empirical research, such as reflections, perspectives, editorials, opinion pieces, best practices, or professional guidance materials.
5. No sufficient information to understand the research guide's implementation as an intervention, or how its effectiveness for learning was defined or assessed is offered.

Appendix B

Extraction Table Aligned With Research Questions

	RQ 1: IL learning outcomes associated with guides		RQ 2: how guides are evaluated				RQ 3: evidence shared
	Study purpose	**Outcomes measured**	**Investigatory foci**	**Guide integration**	**N Population**	**Data sources**	**Findings**
Almeida & Tidal, 2017	Identify student design and organizational preferences for guides	design and learning modality preferences	Usability; Satisfaction	Print-based, Subject guide	10 students in two- & four-year programs	Usability testing; interviews	Neutral No best layout identified from users
Archer et al., 2009	Evaluate utility of research guide for primary source literacy	knowledge of primary source literacy	Usability; Evidence of learning	Supplemental to library instruction, subject guide	17 undergraduates from different departments	Pre/Post survey; usability testing	Neutral minimal improvement in students' pre/post-questionnaire definitions of primary sources; students seemed confused over purpose of guides
Baker, 2014	Compare student preferences for pathfinder or tutorial style guides	design, content, and organizational preferences	Satisfaction	Course guide	N/A undergraduate students from 2 first-year experience sections	Survey	Positive students preferred tutorial guide and self-reported improved learning experience
Barker & Hoffman, 2021	Identify student content and design preferences for guides	design, content, and organizational preferences	Usability	Subject guide	18-40 undergraduate students	Pre/Post usability testing	Positive design updates based on first card sort showed improvements
Becker et al., 2017	Determine if and how students engage with the library as part of their studies and determine how well the library supports the academic activities of students	Use and awareness of resources; frequency of use	Usage; Satisfaction; Utility	Subject guide	394 Faculty, grad students and majority undergraduate students	Web stats; interviews; survey	Mixed Unaware of guides in survey, but use data shows that the guides were being accessed
Becker et al., 2022	Overview of institutional LibGuide implementation; assessment of whether creating LibGuides supported the information needs of students	students' perceptions and reported use of guide	Usage; Satisfaction; Utility	Subject guide	28 completed online questionnaire 13 for follow up interview	Survey; focus group	Positive Most students reported library guide to be useful

	RQ 1: IL learning outcomes associated with guides		RQ 2: how guides are evaluated				RQ 3: evidence shared
	Study purpose	**Outcomes measured**	**Investigatory foci**	**Guide integration**	**N Population**	**Data sources**	**Findings**
Bisalski et al., 2017	Present a case study of pedagogy for implementing online study materials for the ETS MFT-B	self-reported test scores; students' perceptions on effectiveness and usefulness of guide	Usage; Utility; Evidence of learning	Course guide	55 students enrolled in strategic management course	Survey	Mixed about half of students used guide; most preferred internet resources
Bowen et al., 2018	Measure and compare students' use and satisfaction of different guide navigation designs	design, content, and organizational preferences	Usability; Satisfaction; Utility	Course guide	10 stage 1; 14 stage 2 - undergraduate students enrolled in COMM 430 class	Usability testing; Standardized survey	Mixed greater preference shown towards longer version of guide
Bowen, 2012	Describe current approaches and assess the value of placing course-level research guides into an LMS	students' perceptions on effectiveness and usefulness of guide	Usage; Satisfaction; Utility	Embedded into LMS; course guide	63 undergraduates in a communications course	Survey	Positive most students reported that assignment guide was beneficial
Bowen, 2014	Comparing students' performance between LibGuide versus website guide	knowledge-based test and affective measurement survey	Usability; Usage; Satisfaction; Utility; Evidence of learning	Embedded into LMS, course guide	89 undergraduate students enrolled in COMM 132	Pre/Post survey; Pre/ post-test performance	Mixed students able to access materials; both sets of students were confused in answering knowledge-based questions
Brewer et al., 2017	Look at how program level and the timing of the introduction of a Literature Review library guide within the program influenced online business students' perceived value of the resource	reported use and satisfaction with guides; usability and relevance of content	Usage; Satisfaction	Course guide	24 online undergraduate business students and online MBA students	Survey	Mixed students were satisfied and able to use the guide; usability could be enhanced; earlier introduction desired
Carey et al., 2020	Examine students' use, perceptions, and awareness of library guides	use, perceptions, and awareness	Usage; Satisfaction; Utility	Course guide, Subject guide	100 undergraduate and graduate health sciences students	Survey	Mixed Limited general awareness, limited general use; perceived as valuable
Chiware, 2015	Evaluate students' perceptions of a guide / determine how effective guides were in supporting students	use, perceptions, and awareness	Usage; Satisfaction; Utility	Course guide	1303 undergraduate ECON students	Survey	Mixed half of students used guide; most expressed appreciation for guide

	RQ 1: IL learning outcomes associated with guides		RQ 2: how guides are evaluated				RQ 3: evidence shared
	Study purpose	**Outcomes measured**	**Investigatory foci**	**Guide integration**	**N Population**	**Data sources**	**Findings**
Cobus-Kuo et al., 2013	Investigate student preferences in terms of guide layout, organization, internal navigation, hierarchy, images and video, and content	design, content, and organizational preferences	Usability	Course guide, Subject guide	20 Students in user interface design and development course	Usability testing	Neutral when shown guides, students expect to find library resources, databases most useful, value design consistency across guides, but held differing opinions overall.
Courtois et al., 2005	Gather information on students' satisfaction with guides	single question survey was this guide helpful with 4 possible responses	Utility	Course guide, Subject guide	210 students	Survey	Mixed 40% of respondents rated a guide as Not Helpful or A Little Helpful
Dalton & Pan, 2014	Outlines the overall project management process involved in implementing LibGuides at UCD Library,	use, perceptions, and awareness	Usage; Utility	Course guide, Subject guide	58 students in the main Arts building	Pre/Post survey; Pre/Post web stats; Pre/Post interviews	Mixed low guide use overall
Daly, 2010	Assess the use of both automatically and manually linked Library Guides into the LMS / are guides useful to students' research; should they be embedded?	use, perceptions, and awareness	Usage; Utility	Embedded into LMS, course guide	106 Students who accessed the Library Guides menu item	Survey	Positive majority reported that course- specific guides were somewhat useful or very useful for their research and should be in LMS
Dotson, 2021	Process article of how author used pandemic time to create 460 course guides for his STEM liaison areas and a look at use stats on the guides	use	Usage	Embedded into LMS, Course guide	N/A looked at use stats only	Web stats	Negative data shows low use overall
Fagerheim et al., 2017	Student feedback on library guide design updates	use; design, content, and organizational preferences	Usability; Usage	Subject guide	16 Undergraduate students	Web stats; focus group	Mixed students liked clean layout with consistent template; home tabs highest use stats

	RQ 1: IL learning outcomes associated with guides		RQ 2: how guides are evaluated				RQ 3: evidence shared
	Study purpose	**Outcomes measured**	**Investigatory foci**	**Guide integration**	**N Population**	**Data sources**	**Findings**
Gardner, 1977	Encyclopedia entry describing history of pathfinder development out of Project Intrex Model Library Program, M.I.T.	perceptions of usefulness	Usage; Utility; Satisfaction	Subject guide	71 users of MIT's Barker Engineering Library	Survey	Positive 48% used pathfinders for course paper research, and all sections of the Pathfinders were used. 90 found pathfinders very helpful or fairly helpful; 10% not helpful
Gerrish & Martin, 2023	Measure success of changes to remote field station library service in response to COVID-19	student willingness to use virtual library services	Usage	Embedded into LMS, subject guide	N/A annual guide stats of undergraduate use gathered 2017–2022	Web stats; instructor interviews	Positive guide visits spiked during pandemic despite fewer research assignments, fewer students, and decrease in reference questions asked
Gibbons, 2003	Pilot study evaluating course guides embedded into LMS	perceptions of usefulness; use	Usability; Utility	Embedded into LMS, course guide	53 students enrolled in 12 pilot classes	Survey; web stats	Positive students reported guides as highly useful to them; web stats showed repeat usage and lengthy engagement
Gilman et al., 2017	Overview of faculty / librarian partnership for developing IL to support first-year agricultural science students	perceptions of usefulness; use; task completion	Usage; Satisfaction; Utility; Evidence of learning	Embedded into LMS, Course guide	N/A First-year agricultural science students in AGRI 116	Standardized survey; web stats; assignment analysis	Positive students reported guides as highly useful to them though no association with assignment completion rates
Greenwell, 2016	Testing an instructional design model by comparing students' performance after using a guide designed using a systems approach with IL Standards as outcomes versus a guide designed using I-LEARN process as framework:	use; information searching behaviors and pathways; source use	Usage; Evidence of learning	Course guide	112 first-year undergraduate students enrolled in seven sections of the same composition and communications course.	Survey; IL skills test; web stats; citation analysis	Positive students find online library research guides valuable for finding sources

	RQ 1: IL learning outcomes associated with guides		RQ 2: how guides are evaluated				RQ 3: evidence shared
	Study purpose	**Outcomes measured**	**Investigatory foci**	**Guide integration**	**N Population**	**Data sources**	**Findings**
Griffin & Taylor, 2018	Offers a methodology for using quantitative analytics data to evaluate guide usefulness and use	use	Usage	Course guide; subject guide	N/A Primary user population undergraduate and graduate students	Web stats	Negative limited engagement with content overall with little use beyond home page
Hansen, 2014	Examine effectiveness of ESL library guide	IL skills; academic language proficiency; academic research process; perceptions of usefulness	Utility; Evidence of learning	Course guide; supplemental to library instruction	142 ESL undergraduates enrolled in two sections of ESL class	Survey; Pre/ post test performance; focus group; pre/post assignment analysis	Mixed increased awareness of library resources and scholarly source types; no increase in students' ability to effectively use academic research
Hintz et al., 2010	Identify what students want from subject guides	rating of guide comprehension, visual appearance, and content usefulness; reported intention to use a guide	Satisfaction; utility	Subject guide	55 students	Survey	Neutral students want authoritative information and think guide design matters
Hsieh et al., 2014	Quasi-experimental study to assess effectiveness of four approaches to teaching IL skills, one of which required students to preview a librarian created research guide	test scores and performance measures	Evidence of learning	Supplemental to library instruction, Subject guide	107 undergraduate students in required FYW courses	Pre/Post test performance	Neutral No significant gains for research guide group
Lauseng et al., 2021	Measure the impact of the EBM guide on user learning experience and outcomes; and to gather evidence for staffing allocations and for conversion to an OER.	use; knowledge; confidence; perceptions, satisfaction level, recommendations, and future intention of referral	Usage; Satisfaction; Utility; Evidence of learning	Subject guide	119 students 64% and practicing health professionals 23%	Survey; web stats	Positive Participants reported finding what they needed and high satisfaction with guide content

	RQ 1: IL learning outcomes associated with guides		RQ 2: how guides are evaluated				RQ 3: evidence shared
	Study purpose	**Outcomes measured**	**Investigatory foci**	**Guide integration**	**N Population**	**Data sources**	**Findings**
Lee & Lowe, 2018	Observe students' unmediated and outside of class interactions and learning with either pedagogical or pathfinder style library guides during simulated research assignment	assignment performance; perceived-learning experience; guide interaction and use; IL skills based on Framework	Usability; Evidence of learning	Course guide	22 students from first year to graduate in various majors	Survey; test performance; assignment analysis; usability testing	Mixed no difference on IL skills test; pedagogical guide preferred over pathfinder design
Lee et al., 2003	Evaluate course guides effectiveness for students' immediate information needs	knowledge of library resources	Satisfaction; Evidence of learning	Supplemental to library instruction, Course guide	89 students enrolled in three basic courses	Pre/Post test performance	Positive experimental group performed higher than control group on all questions
Leighton & May, 2013	Describe effectiveness of library instruction and course guide for preparing students for mock appellate exercise	use; perceptions of usefulness	Usage; Utility	Supplemental to library instruction, Course guide	24 undergraduate international business students	Survey; web stats	Mixed Few students used guide resources; most would recommend to a friend
Li, 2016	Evaluate how students use the library resources and services for completing their projects	use of library resources and services for completing projects	Usage; Utility	Course guide, subject guide	N/A undergraduate business students	Survey	Positive Majority of students used library resources to complete their projects, incl. databases 80%, course guides 63.3%, articles 33.3%, subject guides 23.3%, archives 16.7% and books 10%
Lierman et al., 2019	Describes multi-stage usability testing process used during and after migration to LibGuides v2.	design, content, and organizational preferences	Usability	Course guide, Subject guide	6 mix of students	Usability testing; survey	Neutral students grouped content according to type of task e.g. citing sources instead of users e.g. undergrads, athletes

	RQ 1: IL learning outcomes associated with guides		RQ 2: how guides are evaluated				RQ 3: evidence shared
	Study purpose	**Outcomes measured**	**Investigatory foci**	**Guide integration**	**N Population**	**Data sources**	**Findings**
Little et al., 2010	Share information related to a faculty learning community and their instructional methods for teaching research skills	self-perceptions: ease of navigation; usefulness of info and resources	Usability; Satisfaction; Utility	Course guide	18 graduate students	Survey	Positive Authors conclude survey findings reveal "overwhelming success" of library guide as a tool to support student research
Magi, 2003	Quasi-experimental study comparing students' use of print pathfinder versus web-based research guide in library instruction	self-perceptions of guide usefulness; feelings, opinions, and attitudes; source use	Usability; Satisfaction; Utility; Evidence of learning	Supplemental to library instruction, Print-based, Course guide, Subject guide	84 Undergraduate students enrolled in two sections of first-year business course	Pre/Post survey; citation evaluation	Mixed high satisfaction; low use; no difference in resources used
Mahaffy, 2013	Explores students' independent interactions with research guides	use; design, content, and organizational preferences	Usage; Satisfaction; Utility	Print-based, Course guide	10 undergraduates in ART 101 course	focus groups; web stats	Mixed limited use reported; little familiarity with content
Metter & Willis, 1993	Overview of library handbook project to replace library instruction	Student perceived usability, utility, and satisfaction	Usability; Satisfaction; Utility	Print-based	85 students	Survey	Positive Most students reported greater comfort in using library and would recommend it to a friend
Miles & Bergstrom, 2009	Usability study on effect of the number of subject labels listed on research question response times	Response time to research questions and total number of subject headings	Usability	Other: Participants selected subject label in response to research questions	120 students and staff	Usability testing	Neutral No association between response time and number of subject categories
Miller, 2014	Examines custom library guide creation and use of library resources	course guide resource use and assignment performance	Usage	Supplemental to library instruction, course guide	318 technical college students in English and psychology classes	Web stats	Positive Relationship found between course guide creation and use stats

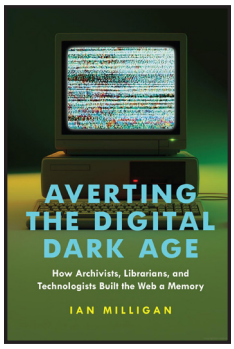
	RQ 1: IL learning outcomes associated with guides		RQ 2: how guides are evaluated				RQ 3: evidence shared
	Study purpose	**Outcomes measured**	**Investigatory foci**	**Guide integration**	**N Population**	**Data sources**	**Findings**
Miner & Alexander, 2010	Investigates use of library guides for broad and narrow topics in lower- and upper-division POLI classes	Students' performance on theory papers and current events assignments; guide use	Usage; Evidence of learning	Course guide	75 students in an international affairs and political science course	Web stats; Assignment analysis	Positive Relationship between overall guide use and assignment performance
Mubofu & Malekani, 2021	Explore accessibility of library resources and services to distance learners	satisfaction, use, and access challenges re. library resources	Usage; Satisfaction	Course guide, subject guide	33 distance students	Survey	Mixed Most students reported using the guides but were neutral re. satisfaction with library research guides
Murphy & Black, 2013	Examined use and design characteristics of library guides embedded in LMS	Consideration of promotion, design characteristics, and student preferences for library guides	Usage; Utility	Embedded into LMS, Course guide, Subject guide	100 students	Standardized survey; web stats; content analysis	Mixed more students aware of guides than used them; most students described guides as helpful
Mussell & Croft, 2013	Evaluation of library resource use to aid resource allocation	Use, perceptions, and awareness	Satisfaction; Utility	Course guide, Subject guide	1,038 mix of undergraduate and graduate students	Survey; web stats	Mixed limited use of guides; clear preference for Google; less than half who had used guides found them helpful to essential
Olshausen, 2018	Examine use of course guides outside of classroom	Use, perceptions, and awareness	Usage; Satisfaction; Utility	Supplemental to library instruction, Course guide, Subject guide	5 students	Web stats; interviews	Mixed Little consistency in responses but most said guides seemed valuable
Ouellette, 2011	Qualitative project investigating students' use of and satisfaction with subject guides	Use, perceptions, and awareness	Usage; Satisfaction	Subject guide	11; mix of students from different class levels and disciplines	Interviews	Negative Students don't use guides as unaware, prefer Google, or have info strategies in place
Paul et al., 2020	Case studying examining whether online library guides helped prepare students to meet with reference librarian	student survey on guide usefulness, quiz and discussion post about guide content	Satisfaction; Utility; Evidence of learning	Course guide	30 online graduate students in education doctoral program	Survey; test; assignment analysis	Positive positive responses to design and content; content viewed as valuable

	RQ 1: IL learning outcomes associated with guides		RQ 2: how guides are evaluated				RQ 3: evidence shared
	Study purpose	**Outcomes measured**	**Investigatory foci**	**Guide integration**	**N Population**	**Data sources**	**Findings**
Pickens-French & McDonald, 2012	Study effectiveness of library guides embedded into CMS	Surveyed students on guide usability and overall satisfaction	Usability; Satisfaction	Embedded into LMS, Course guide	34 undergraduate students in English class	Survey; web stats	Neutral low interest in instructional content; preference for fewer resources listed
Rafferty, 2013	To evaluate whether students used resources recommended in library instruction	Sources cited in students' research assignments	Usage	Supplemental to library instruction, Course guide	118; three years of first-year medical students enrolled in course	Citation analysis	Positive Students heavily cited library resources with 22% citing sources shared on course guide
Rothstein, 1989	Reflection on effectiveness of library school project having students create customized research guides for undergraduates	Questionnaire given to student recipients of custom research guides	Usage; Satisfaction; Utility; Evidence of learning	Subject guide	77 questionnaires given to all 260 undergraduate student recipients of custom research guides	Survey	Positive 90% of users reported being satisfied with custom research guides
Scoulas, 2021	Examine relationship between STEM and non-STEM students' library use, perceptions, and GPA	Students' overall experience with library use; frequency of visits and resource use; perceptions of resources; satisfaction with physical spaces	Usage; Satisfaction	Course guide, Subject guide	1,265 undergraduate students responding to library use survey	Survey	Mixed STEM students valued course/subject guides less than non-STEM, though small effect size
Sharrar, 2017	Understand how student perceptions of library course guides effect their intent to use them	Students' stated intentions to use a guide	Usage; Utility	Course guide	47 undergraduate students who use course pages	Standardized survey	Positive most found guides useful and relevant to their needs
Sinkinson et al., 2012	Open card sort study comparing undergraduate, graduate, and librarian perceptions and expectations of library guide content	User content expectations	Usability; Utility	Subject guide	30 included three groups: undergraduate, graduate, and librarians	Pre/Post survey; usability testing	Mixed differences detected between undergrad and grad student users
Slemons, 2013	Use of guides regressed against design and usability standards to understand relationship	Average guide page hits per month / per page	Usage	Course guide, Subject guide	N/A usage stats for 2 years	Web stats	Mixed more content = less use; use of design standards associated with use

	RQ 1: IL learning outcomes associated with guides		RQ 2: how guides are evaluated				RQ 3: evidence shared
	Study purpose	**Outcomes measured**	**Investigatory foci**	**Guide integration**	**N Population**	**Data sources**	**Findings**
Smith, 2007	Overview of using meta-assessment to evaluate LibGuide annual use	Results from multiple regression analysis of guide use stats	Usage; Utility	Course guide, Subject guide	N/A examined annual use stats of guides per month	Web stats	Mixed Identified significant differences in use for some subject areas over others
Soskin & Eldblom, 1984	Problems and potential benefits of a term paper for an upper-division economics course are examined using 3 years of data	Informal assessment of effectiveness of library instruction and guide	Usage	Supplemental to library instruction, Course guide, print-based	N/A students enrolled in economics class	Citation analysis; Assignment analysis	Neutral Small relationship between number of sources cited and grade; No relationship between number of source types and grade on assignment
Stone et al., 2018	Comparative investigation between pedagogical and pathfinder guide designs and impact on student learning	Retention of learning; student perceptions of guide effectiveness;	Satisfaction; Utility; Evidence of learning	Supplemental to library instruction, Course guide, Subject guide	43 dental hygiene students	Survey; pre/ post test performance; web stats; assignment analysis	Positive students using pedagogical guide showed increase in perceptions, use, and grade performance over pathfinder
Tang & Tseng, 2014	Examine distance students attitudes towards library help services	Preferences and attitudes for receiving help; self-efficacy for online learning	Usage; Satisfaction; Utility	Subject guide, Course guide	220 distance students	Standardized survey	Mixed Library guides most common library assistance tool used but low use overall
Thorngate & Hoden, 2016	Compared students' use of three different guides to understand how guide layout and spatial distribution components affect interaction	student understanding of purpose of guide; task completion; satisfaction and preferences of content and layout	Usability	Subject guide	30 students representing wide range of demographic characteristics	test performance; usability testing	Mixed students had design and layout preferences
Tomlin et al., 2017	Understand students' use of library resources	students' use and perceived usefulness of library guides	Usage; Satisfaction; Utility	Course guide, Subject guide	182 survey; 30 interviews graduate and undergraduate students at two campuses	Survey; interviews	Mixed most students did not use library guides, but those who did reported strong satisfaction with them

	RQ 1: IL learning outcomes associated with guides		RQ 2: how guides are evaluated				RQ 3: evidence shared
	Study purpose	**Outcomes measured**	**Investigatory foci**	**Guide integration**	**N Population**	**Data sources**	**Findings**
Wharton & Pritchard, 2020	Assessment of LTI integration after three years of Canvas course integration	perceived usefulness, satisfaction with, and use of library guides integrated in the LMS	Usage; Satisfaction; Utility	Embedded into LMS, Supplemental to library instruction, Course guide, Subject guide	>500 survey of fully online students	Survey; web stats	Positive nearly half of students surveyed reported using guides; most found them helpful

Averting the Digital Dark Age: How Archivists, Librarians, and Technologists Built the Web a Memory, Ian Milligan, Johns Hopkins University Press, 2024. 208p. Hardcover, $49.95. 9781421450148

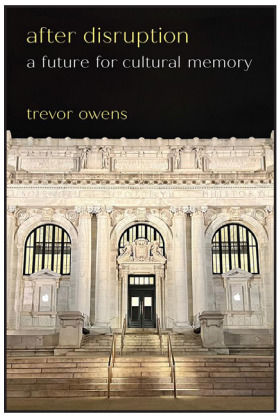


On September 11, 2001, terrorists attacked the United States, an event that proved to be a watershed moment for the country. Much has been written and discussed about the impact of that day. Many of the smaller, more intimate details that we know about that event are still freely available on the internet due to the tireless efforts of various "memory institutions" that took action to preserve every moment possible, providing historians with a deeper insight into a singular event than had previously been thought possible. This was also confirmation of a five-year-long ongoing concern that information on the internet might be lost forever. Online data, once thought to be ephemeral, could in fact survive a great length of time with careful husbandry. *Averting the Digital Dark Age* presents a detailed analysis of the internet's history, particularly in context of the challenges presented by attempts to preserve the huge amount of information contained on the web. By the dawn of the 1990's, concerns began to rise as to how online information would be curated and preserved for posterity, and the concept of the "digital dark age" began to take hold in the minds of many librarians and archivists. The first major attempt to address this concern would become known as the Internet Archive, created in 1996. Taking a lesson from the Library of Alexandria's ultimate destruction and the historical knowledge lost therein, the Internet Archive prioritized the broad distribution of its data as a safeguard against a repeat of such a calamity.

Milligan chose to focus on the earlier phase of data archiving and breaks down his argument into five chapters, roughly correlating with the five years between 1996 and 2001 where the identification of a very real potential threat of massive data loss gave way to several initial attempts to address the issue and finally peaking with the 9/11 crisis. The loss of data was averted, and multiple entities undertook the task of data preservation and archiving. This book does not seek to contribute new information to the field of media history, instead opting to clarify how previous works on the subject paint a picture of the daunting early years of digital media preservation. It examines how people and organizations around the world addressed the challenges of preservation. In the 1990's, the internet was still a relatively small part of the greater world, but the intervening quarter of a century has since seen the internet take on a vastly greater role in society. The internet has arguably become the backbone of the social sphere in many nations and countries, thus the concept of preserving data has increased in importance. Throughout the text, the author uses previously established studies and publications to guide the reader through the fits and starts of the early, heady years of digital archiving to the successful implementation of various "memory institutions" that make the concept of the "digital dark age" largely a thing of the past (barring a major catastrophic event). Libraries and archives may have spearheaded the early attempts, but other entities outside of academia began to step up to tackle the problem, namely the Internet Archive and the Wayback Machine. Along with the referenced sources, Milligan creates a vivid historical text of one of

the greater challenges in recent history and, in a rather inspirational twist, reveals that it was the work of many different entities, both public and private, that made it possible to avoid a potential data vacuum in our social history. *Averting the Digital Dark Age* serves as a wealth of information for historians, particularly media scholars. It also provides a comprehensive look into one of the pressing issues of modern history and how a potential crisis was identified and avoided. Milligan states that the book is a study of historical scholarship, providing context for the role of media in the broader social world. Despite its subject matter, it doesn't concern itself too much with technology, but rather how technology, specifically the internet, affects society and its ability to harness its information, both past and present (11). As such, this volume would be an excellent addition to any academic library or archives that supports internet historians, providing fascinating insight into an otherwise overlooked era in media history. Should researchers wish to delve deeper into the subject matter, there is an excellent bibliography section as reference for further reading. —*Dale E. Autry, University of Southern Mississippi*

After Disruption: A Future for Cultural Memory, Trevor Owens, University of Michigan Press, 2024. 224p. Hardcover, $80.00. 9780472076673



In *After Disruption: A Future for Cultural Memory,* Trevor Owens aims to dismantle the rhetoric of disruption and datafication that has permeated many aspects of our lives in the digital age by building towards a sustainable future outside of this problematic framework. The digital age has brought on what is widely known as a "period of disruption"—disruption being a keyword favored by tech moguls and Silicon Valley that characterizes rapid shifts in technology and digital media as well as its consequences on everything from the workforce to politics to our social lives (22). Memory work and cultural institutions have not been immune to this: the digital age has "played a role in changing how we collectively conceptualize memory itself" (1). Datafication has impacted how memory is processed, flattening and simplifying inherently dynamic and humanistic work. Owens demands that, as memory workers, we imagine a future beyond the rhetoric of disruption and invest in sustainable practices of care both in our professional work and workplace policies.

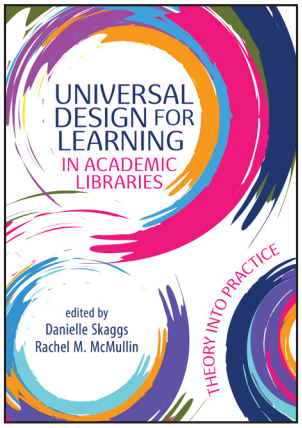
Owens argues that disruption has led to the devaluation of cultural memory institutions' more meaningful work in favor of infinite growth metrics, forcing organizations to push their workers to "do more and more with less … [instead of] focus on what work really needs to be prioritized" (106). Owens additionally frames memory institutions' entrenched colonial practices in memory work within the ideological climate of the digital age; he calls for workers in the field to recognize how digitization can further entrench these problematic practices and to work towards a future that seeks to tap into previously underutilized diverse perspectives and enact justice. Our understanding of and ability to preserve our past depends on our ability to overcome this overreliance on metrics in favor of diverse frameworks of data measurement; meaningful, qualitative goals and initiatives; and building institutions of care, maintenance, and repair where we continually seek to understand the past more meaningfully.

Owens splits his argument into two parts: Part One, "Three Bankrupt Ideas," traces the ideology of disruption from its conception in the 1990's into the digital age, where its impact

is revealed in memory institutions' disproportionate emphasis on metrics and how these elements that permeate modern society are in direct conflict with memory work. In Part Two, "Three Ways Forward," the author offers theoretical advice for memory workers seeking to move beyond the rhetoric of disruption and datafication. He draws on diverse theoretical practices of maintenance, care, repair, and revision to work against these damaging ideologies towards a more sustainable, anticolonial, and inclusive future. Crucially, Owens' argument lacks strategies of addressing political pushback that may come from institutions making a concerted effort towards goals that derive from these concepts, as they are ideologically under fire across the United States and much of the world. He instead focuses on efforts to pivot internal culture rather than external methods of resisting pushback. He says that memory institutions can foster a culture of care that is antithetical to the "move fast and break things" mindset and aim to create a framework of "meaningful goals over measurable goals" (76), juxtaposing the bankrupt ideologies that can bleed into our institutions with ways forward that re-adopt emphasis on meaningful outcomes and care over metrics.

One of the book's strengths is its ability to pinpoint precisely how ideologies of disruption have led to many of the issues common in memory and cultural institutions today, including labor shortages, low pay, and budget cuts. Many of these can be traced from an obsession with metrics that have created harm by "making the world more simplified and legible to those interested in controlling it" (67). A misguided emphasis on quantitative data and output based on this fixation has taken precedence over evaluating cultural and academic impact in more semantic ways. Owens draws on various philosophies to envision a collective future including data feminism, Afrofuturism, and indigenous knowledge. Some solutions Owens presents are applicable primarily to institutional administration in how effectively they can shape institutional policy, emphasizing creating environments that support their workers to shape the digital future of their institutions. However, other workers are similarly called to invest in marginalized groups and amplify their voices in how they are represented in the digital future (15). Owens makes a compelling argument for memory workers to stop trying to work within a framework not built for their institutions and instead create a culture that operates outside of and often against its expectations. This may be the only way for our institutions to survive into the future and maintain integrity of memory and justice-seeking "through maintenance, care, and repair" (195). Workers in institutions including libraries, archives, museums, and heritage sites will find inspiration to approach their work with hope for a more just future where memory work is valued not only for community impact that quantitative metrics cannot always capture but that is also justice-seeking and sustainable. The book calls for those in positions of power to advocate for and implement policies that align with notions of care rather than quantification, although it does not offer solutions when dealing with stakeholders who may not share these ideologies and who ultimately control funding. It encourages leaders to invest in their workers' expertise to create more meaningful work, although it does not provide practical tools to address pushback that is likely in today's political climate. *After Disruption* shares a compelling summary of the problematic notions stemming from the digital age into memory institutions, and it offers hope and inspiration for memory workers to pave the way for a more just culture beyond our current one.—*Jaycee Chapman, University of Alabama, Birmingham*

Universal Design for Learning in Academic Libraries: Theory into Practice, Danielle Skaggs & Rachel M. McMullin (eds.), ACRL, 2024. 294p. Softcover, $78.00. 9798892555494



Today's college students enter the academic library and the classroom with an increasingly diverse array of backgrounds, needs, and existing skill sets. Designing learning experiences and library services that equitably address this range can be challenging. In *Universal Design for Learning in Academic Libraries: Theory into Practice*, editors Danielle Skaggs and Rachel McMullin draw on their expertise in instruction, online learning, and accessibility to present a collection of chapters introducing and applying Universal Design for Learning (UDL). Skaggs and McMullin's book positions UDL as a guiding framework academic librarians can lean on as they examine their teaching and services to adopt practices that better serve all learners.

UDL is derived from Universal Design (UD), an architecture and model principle suggesting that spaces should be planned from the ground up to reduce barriers for all people rather than requiring after-the-fact accessibility solutions. UDL takes this inclusivity into the classroom, advocating for learning experiences that meet all learners where they are, providing openness and flexibility to encourage participation and to reduce alienation. The Center for Applied Special Technology (CAST), the originator of the UDL framework, structures the approach around three main principles: engagement, representation, and action and expression, each with accompanying checkpoints teachers should consider when designing instruction (CAST, 2024).

Universal Design for Learning in Academic Libraries examines UDL's application within the academic library, arguing that a gap exists in the literature on using the Association of College and Research Libraries' *Framework for Information Library for Higher Education* in this setting. The book is divided into sections exploring various areas that could benefit from UDL. Part I lays the groundwork for understanding UDL's current use in the context of libraries where Skaggs and McMullin, in their introductory chapter, delineate UDL's emergence from UD and offer working definitions employed throughout the volume. The next chapters map UDL's intersection with current federal law and accessibility standards, reviewing its application within the reference interview while following the Reference and User Services Association's guidelines.

Part II focuses on applying UDL within library instruction. Chapters cover creating accessible research consultations, implementing the Framework and backward design, and restructuring online learning to be more flexible and equitable. Other sections compare UDL and Web Content Accessibility Guidelines (WCAG) and explore case studies about creating digital learning objects utilizing Springshare's LibWizard and LibGuides applications. Part III is a behind-the-scenes look at the technical side of creating and providing access to materials and systems aimed at reducing barriers to the library. It includes several chapters on Open Educational Resources (OER): applying open pedagogy and critical open pedagogy during OER development; establishing a systematic workflow in creating OER; and marketing OER to campus stakeholders. Content addresses accessible cataloging and UDL-inspired leadership theory. The organizing principle for this section feels a little awkward—OER might have made more sense as a separate section—but including

chapters on UDL outside the classroom is still a solid addition to the book.

Finally, Part IV's two chapters cover the academic library's role in bringing UDL principles to the entire campus. One chapter offers pointers on initiating conversations with campus faculty about transforming research assignment design. Another showcases one library's partnership with a teaching and learning center to create a faculty learning community and book club, which ultimately inspired broader institutional curriculum and standards revisions.

The book is a helpful, beginner-friendly introduction to UDL in academic libraries. It expands the application of UDL beyond the classroom, showing how to create instruction materials, engage stakeholders in the learning process, and maximize the potential impact of library resources and services. Library workers will appreciate the practical relevance and applicability of the book, most of which are case studies showcasing how UDL can enhance existing workflows and generate new initiatives to reduce barriers for users. Especially beneficial are chapters that suggest starting with small projects. Implementation of new frameworks can be daunting and including targeted ideas for realistic first steps enhance the book's value. Providing tips or checklists as a standard element in each chapter would have made it more practical for readers to adopt UDL in their own practices.

Another feature that would have improved the book is the inclusion of a chart listing the full UDL guidelines and tenets. Though Skaggs and McMullin introduce the three main criteria of engagement, representation, and action and expression, most chapters delve into the granular elements requiring readers to search and refer to an external resource for the complete guidelines. Readers should also be aware that, since the publication of Skaggs and McMullin's book in 2024, CAST has released an updated version of the UDL Guidelines, version 3.0 (CAST, 2024). The new iteration addresses the concerns mentioned in several chapters and integrates learner-centered language and addresses issues of bias, identity, and inclusion.

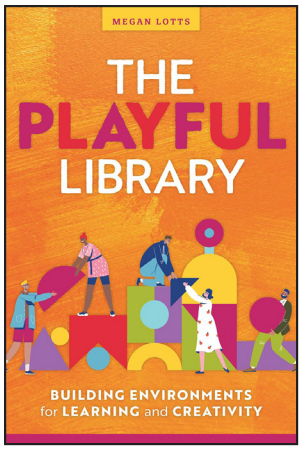
Overall, however, the book is a useful and highly informative resource for practitioners within academic libraries across a wide range of roles. As the chapters do not focus exclusively on the classroom environment, there is content of interest not only to instruction librarians and instructional designers but also to staff in cataloging, electronic resources, outreach, and administration. Librarians who conduct research consultations, manage student workers, work with internal staff, and collaborate with departmental faculty and campus administrators will find valuable content to enrich their work and teaching. Examples in the chapters include institutions from community colleges to large research universities; academic libraries of all sizes and capacities will find informative aspects.

Universal Design for Learning in Academic Libraries is a valuable resource and addresses the coverage gap surrounding UDL in libraries. Skaggs and McMullin focus on the use of UDL as a guiding framework and the included chapters offer sound, actionable examples as well as advice for those looking to increase the accessibility and universality of their own interactions with users and stakeholders.—*Abigail Higgins, Auburn University Libraries*

Reference

CAST. (2024). *Universal Design for Learning Guidelines version 3.0*. https://udlguidelines.cast.org

The Playful Library: Building Environments for Learning and Creativity, Megan Lotts. ALA Editions, 2024. Softcover, 136p. $54.99. 9798892555715.



Megan Lotts' *The Playful Library: Building Environments for Learning and Creativity* frames play as a powerful tool for connection, growth, innovation, and reflection in libraries—a message that strikes a bittersweet note in 2025. While Lotts does not directly address the current political climate, it is difficult to read her book without this context in mind. Libraries across the United States find themselves under increased political scrutiny and have become sites of ideological controversy. The instinctual reaction to this movement may be to retreat and withdraw, sticking with controlled, tried-and-true forms of patron engagement and programming. Instead, *The Playful Library* invites library workers to embrace the spontaneity, creativity, experimentation, and human connection that arise when libraries cultivate playful spaces.

This joyful philosophy makes *The Playful Library* an inspiring read. The book draws from Lotts' extensive professional experience and research into play and creativity in libraries. While the author's background is in academic libraries, Lotts also envisions museums, public libraries, archives, K-12 schools, and professional conferences as potential spaces of play. The book is a practical text, a "primer" and "roadmap" (p. xi) that provides the reader with a wide range of applications for play. Lotts asks her readers to reflect on the buffet of ideas and to adapt those that best suit their own budgets, settings, and audiences.

The book's early chapters define play and present an argument for its place in libraries. "Play" is a nebulous concept and difficult to pin down. In chapter one, "What is Play?" Lotts provides several definitions, citing theorists who describe it as a mindset, a mode for engaging with an environment, and a social tool. Play is defined most clearly in contrast to work; "activities considered play are usually focused on learning and the joy of the activity itself, while activities we call work are often focused on results and subject to judgment and comparison" (p. 3). This element of intrinsic motivation is key to Lotts' framing of play and recurs throughout the book.

This flexible definition allows Lotts to position play as something that can enhance any and every aspect of library work. Libraries can facilitate play within its organizational structure, in library spaces, in the community, or even at home through circulating collections. The book's remaining six chapters provide a wide range of examples that demonstrate this flexibility, showcasing play in library teaching and assessment, community health and wellness, internal culture, games, makerspaces, and community engagement.

Through these examples, Lotts highlights the many benefits of play in libraries. Chapter three, "Play, Teaching, and Assessment," models play as a teaching tool that can inform how students approach research, as "the skills play strengthens are also needed for research and scholarly work" (p. 2). Through activities like six-word stories, which prompt students to "use six words and punctuation to share an idea, event, or moment" (p. 33), the author challenges students to articulate their research topics concisely, identify keywords, and adjust the scope of their research, all in an environment that encourages laughter, collaboration, and low-stakes trial and error.

A compelling theme throughout the book is how play reshapes the dynamic between librarian and learner. Instead of serving as a gatekeeper, the librarian becomes a facilitator

who creates an environment in which students can "take charge of their own learning" (p. 34), exploring, experimenting, and building their own connections with the material. This constructivist approach, which encourages library workers to "let go of the idea that you can control how people learn" (p. 30), is also evident throughout the book's illustrations. These include a six-week virtual professional development program in which learners can choose their path through the materials and a show-and-tell activity where students work together to puzzle out information about a library's services from a mystery bag full of library swag.

Lotts also frames play as a vehicle for community building. Chapter four, "Health and Wellness," centers libraries as "cornerstones of their communities" that should use play to "support the health and wellness of our community members" (p. 49). Chapter eight, "Connecting Communities with Play," underscores how play brings people together. A particularly telling example describes State Library Victoria's relocation of its chess collection from a separate room to a former international student study space. Suddenly, older locals who used to play solo games were engaging with international students over chess boards. With its power to bridge divides and foster connection, play can help libraries fulfill their mission to strengthen communities.

The Playful Library is interspersed with reflection prompts that encourage readers to pause and "play" with ideas. One memorable prompt asks readers to imagine a dream floorplan of their library, built using only sweets. Another asks readers to reflect on their library's existing "play community" and to identify a planning partner for a playful event. These questions of engagement provide opportunities to experience play as a means of reflection, innovation, and personalization.

Throughout the book, Lotts is careful to note challenges to fostering play in libraries, emphasizing the need for structure and shared rules to ensure fairness and respectful interactions. She also acknowledges the possibility of institutional roadblocks to creating a culture of play; however, the book assumes a receptive audience and does not spend much time exploring strategies to sway skeptical administrators. Instead, Lotts encourages her readers to embrace play when possible, and "try thinking of play like dressing on the side of a salad—just add as much as you like" (p. 1).

The Playful Library asserts that "play is not about violating tradition; it is about embracing the future and reflecting on how things work" (p. 115). It presents play as a diffuse concept that can sometimes feel difficult to fully grasp. However, a strong throughline of flexibility, experimentation, and exploration in service of meeting community needs is apparent throughout the book. Library workers can use play to test new ideas, invite community feedback, and break down internal silos. It can serve as connective tissue between diverse communities and breathe new life into underutilized spaces in the library. Lotts makes a powerful case for adopting a playful mindset to build thriving, inclusive, and joyful library spaces.—*Teresa Nesbitt, University of North Georgia*